Appendix F1
SCIG Recirculated Draft EIR
Noise Technical Study

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1 Introduction

This study evaluates existing and future noise levels associated with the proposed Southern California International Gateway (SCIG) Project. The proposed Project site is located west of the Terminal Island Freeway and east of the Dominguez Channel, and is primarily south of Sepulveda Blvd and north of Pacific Coast Highway. The Project site is located in the City of Los Angeles and portions of the project components are in proximity to noise sensitive land uses in the City of Long Beach, Los Angeles communities of San Pedro and Wilmington, and the City of Carson. The SCIG Project description calls for the construction of an intermodal rail yard with tracks and staging areas within the facility, in addition to roads and rail lines to connect the facility to outside transport networks. The proposed Project elements would provide additional near-dock intermodal rail capacity for current and expected cargo volumes and maximize the efficiency of cargo transfer from port to rail. At full build–out in 2023, the facility would facilitate 5542 truck trips daily and would handle 4167 containers per day.

The following sections of this report provide an overview of the noise environment in the vicinity of the proposed Project and the federal, state and local regulations that are applicable to the project. Future noise and vibration associated with the construction and operation of the proposed Project are identified.

2 Environmental Setting

2.1 Noise Fundamentals

Noise is defined as unwanted sound. Sound is the result of vibration within a fluid medium. For humans, the fluid medium is air and the receptor is the human ear. Because all humans perceive and interpret sound differently, the types of sound which comprise noise are subjective. However, the consensus is that undesirable sound is noise. The science of noise and sound measurement and description is technically complex, having its own commonly used acoustical terminology (Table F1-1).

2.1.1 Decibels and Frequency

Environmental noise is measured on a logarithmic scale in decibels (dB). Decibels measure the relative magnitude of pressure fluctuations in a sound medium under the influence of a vibratory source. An increase of 10 decibels represents a 10-fold increase in acoustic energy, which is perceived by people as approximately a doubling of loudness over a wide range of amplitudes. Since decibels are logarithmic units, sound pressure levels are not added arithmetically. When two sounds of equal sound pressure level are added, the result is a sound pressure level that is 3 dB higher. For example, 60 dB plus

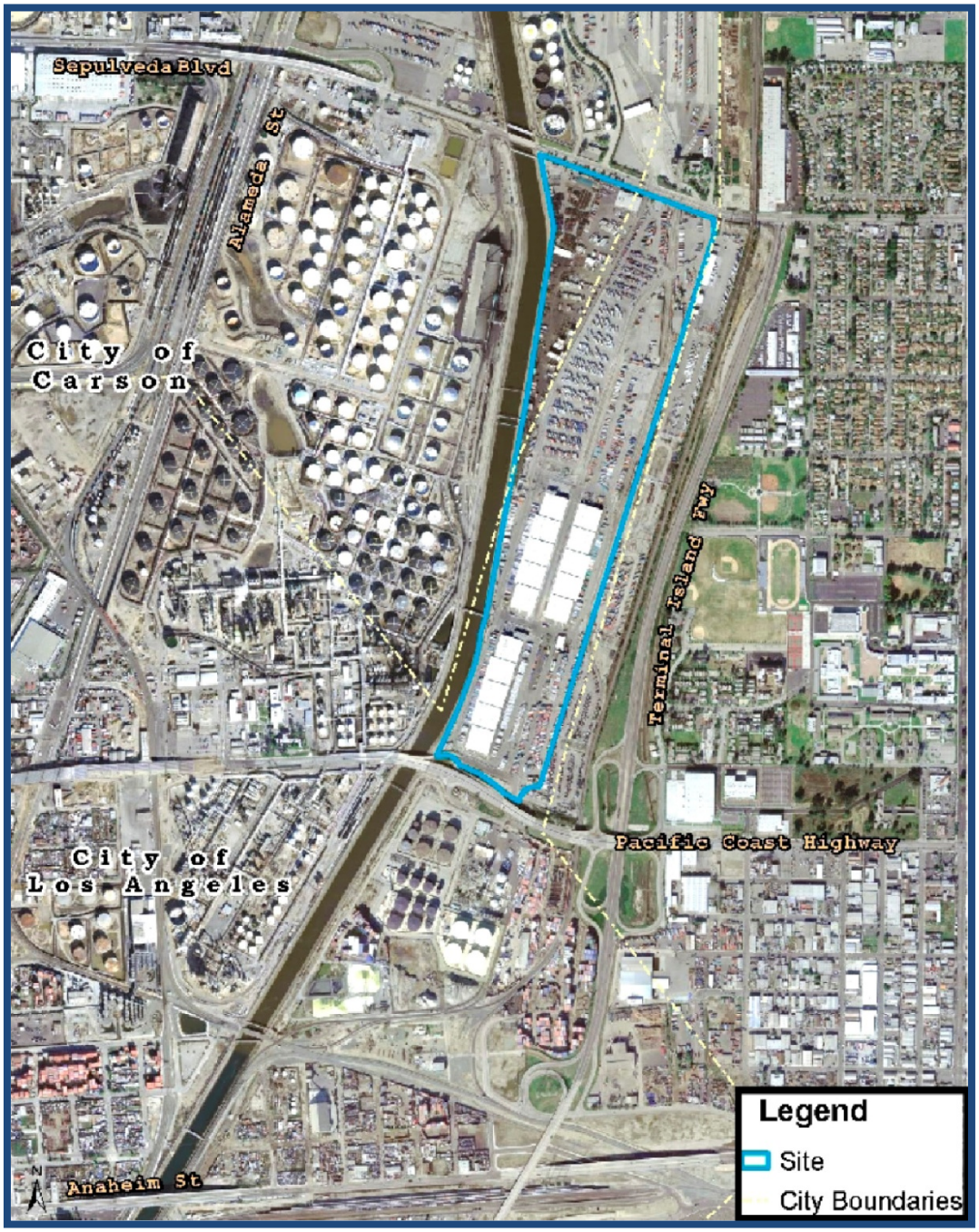


Figure F1-1. Location of the Proposed SCIG Project Site

Table F1-1. Common Acoustical Terminology

Term	*Definition*
Ambient Noise Level	The noise, resulting from the natural and mechanical sources and human activity, considered to be usually present in a particular area at any time.
A-Weighted Sound Level (dBA)	Weighted Sound Pressure Level which reflects the human ear's most noticed frequencies, defined in decibels. De-emphasizes sounds with frequencies lower that 1kHz and higher than 4 kHz, and emphasizes sounds in between. Most commonly used measure of environmental noise today.
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, adjusted to account for more noise sensitive time periods during the evening and nighttime. The noise level during the evening hours from 7:00 pm to 10:00 pm are increased by 5 dB and the nighttime hours from 10:00 pm to 7:00 am are increased by 10 dB.
Day/Night Average Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, adjusted to account for more noise sensitive time periods during the nighttime. The noise level during the nighttime hours from 10:00 PM to 7:00 AM is increased by 10 dB.
Decibel (dB)	Unit of sound pressure based on a logarithmic scale, computed by squaring a ratio between a given sound pressure and a reference sound pressure.
Frequency (Hz)	The number of times repeated in 1 second (i.e., cycles per second)
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location.
L_{eq}	The equivalent sound level or average A-weighted noise level during the measurement period.
L_{xx}	The statistical sound level that is exceeded xx % of the time during the measurement period.
L_{02}, L_{08}, L_{50}, L_{90}	The statistical A-weighted noise levels that are exceeded 2%, 8%, 50%, and 90% of the time during the measurement period.
L_{max} , L_{min}	The maximum and minimum noise levels during the measurement period.
Loudness	The amplitude of sound waves combined with the reception characteristics of the ear.
Pitch	The height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced.
SEL	Sound Exposure Level is a measure of cumulative noise exposure for a noise event. Mathematically, it is the sum of the sound energy over the duration of a noise event, normalized to a one-second duration.
Sound Pressure	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter.
Sound Pressure Level	Sound pressure level is the quantity that is directly measured by a sound level meter and is computed by squaring a ratio between a given sound pressure and a reference sound pressure: dB = (20 x log (measured sound pressure/ref. sound pressure) The reference pressure for air is 20 micro Pascals.

60 dB equals 63 dB, and 80 dB plus 80 dB equals 83 dB. However, where noise levels differ, the lower noise source may cause little change relative to the louder noise source; for example when 70 dB and 60 dB sources are added, the resulting noise level equals 70.4 dB.

The frequency of a sound wave is the number of times in one second that the sound wave is repeated (i.e., the number of cycles per second). Frequency is designated by a number, and is expressed by the unit Hertz (Hz; 1 Hz=1 cycle per second). The frequency range over which normal adults are capable of hearing is approximately 20 Hz at the low frequency end to 20,000 Hz at the high frequency end.

Because the human hearing system is not equally sensitive to sound at all frequencies, the A-weighted filter system is used to express measured sound levels, in units of dBA, based on the sensitivity of the human ear. The dBA scale emphasizes mid- to high-range frequencies and de-emphasizes the low frequencies to which human hearing is less sensitive. Table F1-2 shows typical A-weighted exterior and interior noise levels that occur in human environments.

Because A-weighted sound levels are adjusted to the sensitivity of the human ear, they are commonly used to quantify noise events and environmental noise. However, community response also depends on the existing ambient sound level, magnitude of sound with respect to the background noise level, duration of the sound, repetitiveness, number of events, and time of day.

Table F1-2. Typical A-weighted Exterior and Interior Noise Levels

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL dBA	COMMON INDOOR ACTIVITIES
	---110---	Rock Band
Jet Fly-over at 300 m (1000 ft)		
	---100---	
Gas Lawn Mower at 1 m (3 ft)		
	---90---	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)		Food Blender at 1 m (3 ft)
	---80---	Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime		
Gas Lawn Mower, 30 m (100 ft)	---70---	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	---60---	
		Large Business Office
Quiet Urban Daytime	---50---	Dishwasher Next Room
Quiet Urban Nighttime	---40---	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		
	---30---	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (Background)
	---20---	
		Broadcast/Recording Studio
	---10---	
Lowest Threshold of Human Hearing	---0---	Lowest Threshold of Human Hearing

2.1.2 Noise Descriptors

Several noise metrics have been developed to evaluate noise. L_{eq} is the energy average noise level and corresponds to a steady-state sound level that has the same acoustical energy as the sum of all the time-varying noise events. L_{max} is the maximum noise level measured during a sampling period, and L_{xx} are the noise levels that are exceeded xx% of the time of the measurement.

Because environmental noise fluctuates over time, CNEL and L_{dn} were devised to relate noise exposure over time to human response. CNEL and L_{dn} are 24-hour averages of the hourly L_{eq}, but with penalties to account for the increased sensitivity to noise events that occur during the more sensitive evening and nighttime periods. Specifically, CNEL penalizes noise by 5 dB during the evening time period (7:00 PM to 10:00 PM) and 10 dB during the nighttime time period (10:00 PM to 7:00 AM), while L_{dn} only penalizes noise by 10 dB during the nighttime time period (10:00 PM to 7:00 AM).

Leq accounts for the frequency of sounds through the A-weighting, and CNEL addresses long term noise exposure. SEL measures cumulative noise exposure for a noise event as a sum of the sound energy over the duration of the noise event. The Leq value can be converted to a SEL value by the following relation: SEL=Leq+10log(T), where T is equal to 3600 seconds or 1 hour; equivalently, SEL=Leq+35.6 dB (Harris, 1998).

2.1.3 Human Response to Noise

Research indicates that a healthy human ear is able to discern changes in sound levels of 1 dBA within a laboratory environment. It is widely accepted that changes of 3 dBA in a community noise environment are considered just noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud.

A number of studies have linked increases in noise with health effects, including hearing impairment, sleep disturbance, cardiovascular effects (hypertension, heart disease, increased blood pressure), psychophysiological effects, and potential impacts to fetal development (Babisch, 2005). Potential health effects appear to be caused by both short- and long-term exposure to very loud noises and long-term exposure to lower levels of sound. Acute sounds of $L_{AF} > 120$ dB ("L_{AF}" is the A-weighted sound level measured at a "fast" response rate) can cause mechanical damage to hair cells of the cochlea (the auditory portion of the inner ear) and hearing impairment (Babisch, 2005). As shown in Table F1-2, $L_{AF} > 120$ dB is equivalent to a rock concert or a plane flying overhead at 300 meters. High noise levels may cause disturbance to sleep and concentration and may be linked to chronic health impacts such as hypertension and heart disease (Babisch, 2006). A number of studies have looked at the potential health effects from the sound of chronic lower noise levels, such as traffic, especially as these noise levels affect children. In a study of school children in Germany, blood pressure was found to be 10 mmHg higher in a group of students exposed to road traffic noise from high traffic transit routes (Babisch, 2006). A study by Kwanda (2004) showed that in pregnant women, exposure to airplane noise was associated with decreased fetal body weight. Research into these potential effects is still in its early stages, and there is not yet enough information to permit an evaluation of an individual project's effects on public health. Accordingly, this summary is provided as an acknowledgement that such effects could occur, but that the possibility cannot be evaluated for the Proposed Project. A report in the Journal

of Occupational Health cited research showing that sleep disturbance was more prevalent in urban populations exposed to traffic noise above 65 Leq. This exposure to traffic noise has been linked to insomnia, poorer sleep quality and tiredness (Kawada, 2011).

2.1.4 Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on a number of factors. These factors are geometric spreading, ground attenuation, shielding, and atmospheric effects.

Geometric spreading occurs when sound from a small localized source (i.e., a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates or drops-off at a rate of 6 dBA for each doubling of the distance.

Ground absorption adds to the attenuation due to geometric spreading, because the path of noise between the source and the receiver is relatively close to the ground. An excess ground attenuation value of 1.5 dBA for each doubling of distance is normally assumed.

Shielding takes place when a large object (building, barrier, soundwall, terrain feature, etc.) between a noise source and a receiver can significantly attenuate noise levels at that receiver. The amount of attenuation provided by this “shielding” depends on the size and mass of the object, source and receiver geometry, and frequencies of the noise levels. Finally, research by Caltrans and others has shown that atmospheric conditions can have a profound effect on noise levels. Wind, vertical air temperature gradients, humidity and turbulence all affect noise propagation.

2.2 Vibration Fundamentals

Vibration is an oscillatory motion in a solid medium that can be described in terms of displacement, velocity, and acceleration. With a vibrating floor, for example, the displacement is simply the vertical distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement, while acceleration is the rate of change of that speed. In an environmental setting, vibratory motion will most often propagate through the soil, and can potentially affect humans, structures, and equipment. The effects of ground vibration are dependent on the source and amplitude of vibration, source to receiver distance, soil conditions, and receiver characteristics.

2.2.1 Vibration Descriptors

Vibration amplitudes are usually expressed as either peak particle velocity (PPV), the maximum instantaneous peak of the vibration signal, or the root mean square (RMS) velocity, the average of the squared amplitude of the signal. For sources such as truck or motor vehicles, peak vibration levels are typically much higher than RMS levels -- typically a factor of 1.7 to 6 times greater, although the Federal Transit Administration (FTA) recommends a factor of 4. RMS velocity is more appropriate than PPV for evaluating human response to vibration, since it takes some time for the human body to respond to vibration signals. The RMS velocity is normally described in inches or millimeters per second.

Ground-borne vibration is quantified in terms of decibels, since that scale compresses the range of numbers required to describe the oscillations. The FTA uses vibration decibels (abbreviated as VdB) to measure and assess vibration amplitude. In the United States, vibration is referenced to 1 micro-inch/sec (25.4 micro-mm/sec) and presented in units of VdB.

Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration, and are therefore usually confined to short distances (i.e., 500 feet or less) from the source. These man-made activities include heavy rail operations (locomotives, heavily loaded freight cards, and coupling operations), highway traffic (heavy trucks on uneven pavement), and construction equipment (pile driving, pavement breaking, blasting, and demolition). Vibration-sensitive receptors include structures, people, and certain types of equipment.

2.2.2 Human and Structural Response to Vibration

In contrast to airborne noise, ground-borne vibration is not a phenomenon that most people perceive every day because background vibration levels in residential areas are generally below the threshold of perception for humans. The effects of ground vibration are dependent on the source and amplitude of vibration, source to receiver distance, soil conditions, and receiver characteristics. Common vibration sources and the human and structural responses to ground-borne vibration are shown in Figure F1-2.

Although the human threshold of perception for vibration is about 65 VdB (Table F1-3), humans do not usually respond significantly to vibration unless it exceeds 70 VdB. Heavy locomotives typically generate vibration levels of 75 to 80 VdB or more near their tracks. Trucks rarely create vibration that exceeds 70 VdB unless there are bumps in the road. Vibration levels from these sources can be 10 VdB higher than typical if there is unusually rough road or track, wheel flats, geologic conditions that promote propagation of vibration, or vehicles with very stiff suspension systems. Hence, at 50 feet, the upper range for freight rail vibration is around 90 VdB and the high range for heavy truck traffic vibration is 75 VdB. If the vibration level in a residence reaches 85 VdB, most people will be strongly annoyed (Table F1-3).

Construction activity can result in varying degrees of ground vibration, depending on the construction equipment and method of operation. Buildings near the construction site respond to these vibrations variously, ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels. Ground vibrations from construction activities generally do not reach the levels that can damage structures, but they can achieve the audible and perceivable ranges in buildings very close to the construction site.

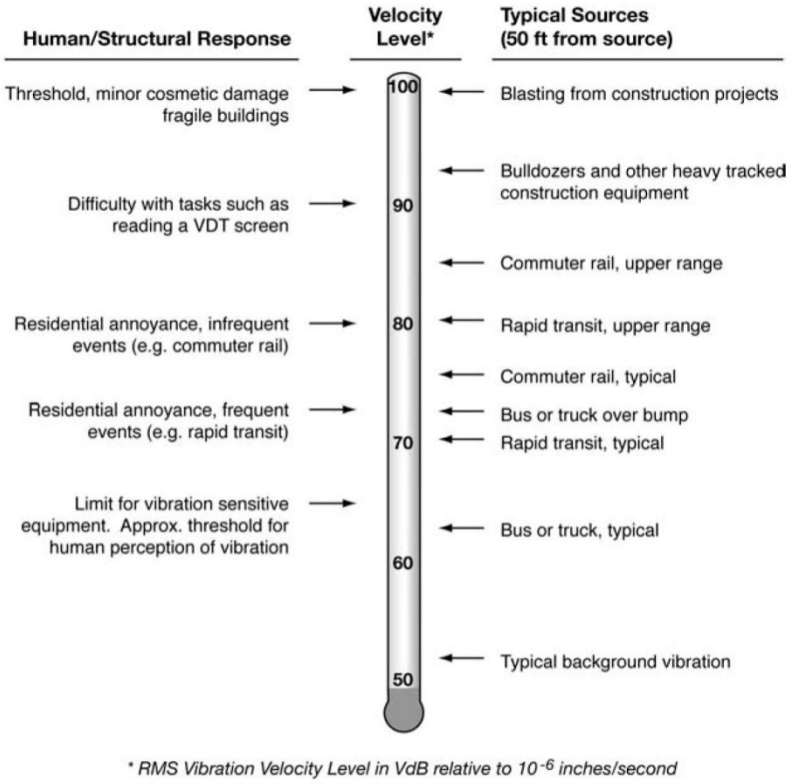


Figure F1-2. Typical Levels of Ground-Borne Vibration

Source: FTA Transit Noise and Vibration Impact Assessment, May 2006.

Table F1-3. Human Response to Different Levels of Ground-Borne Vibration

Vibration Velocity Level	*Human Response*
65 VdB	Approximate threshold of perception for many humans.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level annoying.
85 VdB	Vibration acceptable only if there are infrequent events per day.

Source: FTA Transit Noise and Vibration Impact Assessment, May 2006

2.3 Existing Noise Environment

The existing noise environment at any particular location is a function of the types of nearby noise sources, the relative distance to the sources, and the intervening topography/structures. Baseline noise levels in the vicinity of the proposed Project site, as well as in the surrounding areas that border transportation corridors to and from the site, are attributed to:

- Vehicular traffic on the local arterials
- Vehicular traffic on the freeways (Terminal Island [SR 47], 110 Harbor, and 710 Long Beach,)
- Railroad activity
- Port activity
- Existing industrial operations
- Aircraft
- Community and wildlife activity
- Off-port trucking, commercial and industrial operations

Noise-sensitive receivers are located near the proposed Project site and along the designated truck routes and rail segments that serve the proposed Project site. These receivers are located within the jurisdiction of the City of Long Beach and City of Los Angeles communities, and are comprised of single-and multi-family residences, marina live-aboards, a small wetland reserve next to downtown Long Beach, parks, and institutional uses such as fire stations, schools, religious establishments, child development facilities, and adult education centers. There may also be residences within industrial areas along some of the haul routes. Although a portion of the proposed Project is located within the City of Carson, there are limited noise sensitive receivers within the City of Carson that are directly exposed to the proposed Project.

A baseline noise survey was conducted between January 2008 and April 2012 to document existing noise levels at selected sensitive receivers and other points throughout the study area (Figure F1-3). These monitoring locations are representative of noise sensitive locations in the study area in the baseline year, since land uses and activity levels did not change substantially between 2005 and 2012.

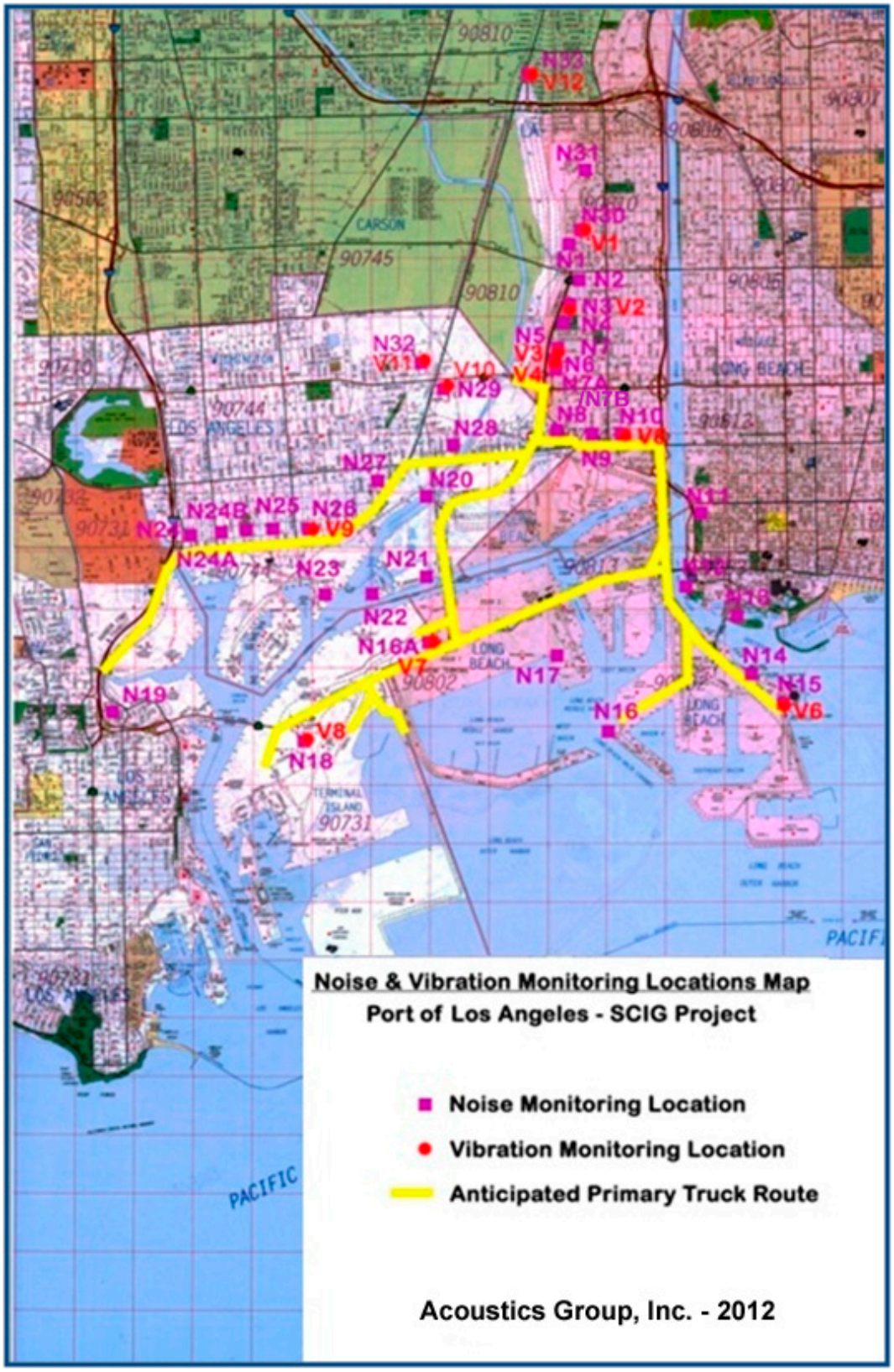


Figure F1-3. Location of the Noise and Vibration Measurements

2.3.1 Sensitive Receivers in Long Beach

Sensitive receivers in Long Beach include single-family residences (Location N1 in Table F1-4), educational and religious establishments (N2 through N7B, N30 and N31), industrial properties with potential residential uses (N8, N9, and N10), parks/open space (N11 through N14), three fire stations (N15-N17), and one recording studio (R34). Details of the various monitoring stations are presented in Table F1-4. Plots of the long term hourly noise levels and statistical data are shown in Figures F.4A through F.4N and Figures F.5A through F.5N. Reid High School is a second row receiver located behind Hudson School (N3), Hudson Park (N4), and Cabrillo High School (N6). Cabrillo High School was selected to also be representative of Reid High School.

Measured short-term existing noise levels, L_{eq}, at the residential and educational receivers north of Sepulveda Blvd ranged from 52.1 to 63.2 dBA, and the measured CNEL from 54.7 to 61.2 dBA. Contributing noise sources included nearby industrial activity, trains, vehicular traffic, students, and children playing. Short-term noise levels, L_{eq}, at the educational and religious receivers between Pacific Coast Highway and Sepulveda Boulevard (where the North Lead Track would be located), ranged from 55.8 to 69.0 dBA, and the measured CNEL from 62.8 to 69.9 dBA. All of these receivers are located adjacent to the Terminal Island Freeway and are exposed to vehicular and truck traffic on the freeway, as well as train operations, local traffic, industrial activity, students playing, aircraft, and wildlife.

The measured existing short term noise levels, L_{eq}, within the West Long Beach Industrial Redevelopment Project Area ranged from 66.4 to 73.4 dBA. All of these potential receivers are located close to or along the designated truck routes (see Section 2.4) and are exposed to traffic noise. Because of the proximity to industrial land uses, truck traffic and industrial activity are the primary contributors to the existing noise environment. The parks/open space receivers (N11 – N14) and the fire stations (N15-N17) are located further away from the proposed Project site than the previous receivers, but they are near designated truck routes. Short-term noise levels, L_{eq}, at those receivers ranged from 59.2 to 70.4. Typical contributing noise sources included vehicular and truck traffic, aircraft, children playing, people talking, ship generators, and wildlife.

2.3.2 Sensitive Receivers in San Pedro & Wilmington

Sensitive receivers in San Pedro and Wilmington include single-family residences (N19, N24, N24A, N26, N27, N29, and N32), marinas with boat live-aboards (N20, N21, and N22), community centers (N25), industrial properties with potential residential uses (N28), parks (N24B), and two fire stations (N18 and N23). Details of the various monitoring stations are presented in Table F1-4. Plots of the long term hourly noise levels and statistical data are shown in Figures F.4A through F.4N and Figures F.5A through F.5N.

Fire station receivers (N16A and N18), which are considered sensitive receivers, are near shipping terminals and are adjacent to designated truck routes that would serve the proposed Project site. The measured short term existing noise levels, L_{eq}, at these receivers were 65.7 and 72.2 dBA, respectively. A CNEL of 69.5 dBA was measured at Receiver N16A. Noise sources that contributed to the ambient noise environment at Receiver N16A were trains, power plant operations and potential construction activity. The single family receiver (N19) overlooks the western edge of the Port of Los Angeles, specifically the China Shipping Terminal and Pacific Avenue. The

measured short term existing noise levels, L_{eq}, were 69.4 dBA, while the CNEL was 71.2 dBA. Typical noise sources experienced at this location include vehicular and truck traffic, trains, and port operations.

The short term noise levels, L_{eq}, measured at the Leeward Bay Marina, Island Yacht Marina, and Peninsula Road Marina Receivers (N20, N21, and N22) were 81.7, 75.6, and 58.7 dBA, respectively. The CNEL levels measured at Receivers N20 and N21 were 80.3 and 79.3 dBA, respectively. Ambient noise levels at Receivers N20 and N21 were dominated by train operations and vehicular traffic on the Terminal Island Freeway. Receiver N22 was located further away from these sources and was exposed to noise from Port operations, local traffic, live aboards, aircraft, and wildlife. A short term noise level of 58.7 dBA was measured at Fire Station #49 (N23). Noise sources experienced at this location included industrial activity, local traffic, horns, public address system, and wildlife. The Wilmington Community receivers (N24, N24A, N24B, and N25) border container haul routes and the ambient noise levels in these areas are dominated by truck traffic, and to a lesser extent port operations, local traffic, and industrial activity. The measured short term noise levels, L_{eq}, were 83.3, 64.0, 71.8, and 71.6 dBA, respectively.

Residential receivers (N26 and N27) in the Los Angeles Harbor Industrial Center Redevelopment Project Area, also known as the Wilmington Industrial Park, experience vehicular and truck traffic noise, industrial noise and dog barking. The short term noise measurements yielded L_{eq}s of 70.5 and 69.7 dBA, respectively. Potential residential uses (N28 and N29) within the industrial-zoned properties on East I Street and Mauretania Street are exposed to noise from local auto traffic, truck traffic, wrecking yard operations, trains, and refineries. Short term noise levels, L_{eq}, were 63.7 and 67.1 dBA at these receivers, respectively. The CNEL measured at N29 was 71.3 dBA. Residential Receptor N32 experiences noise from local auto and truck traffic, nearby industrial operations and operations from the Alameda Corridor. The L_{eq} was 67.2 dBA and the CNEL was 69.3 dBA at this location.

2.3.3 Sensitive Receivers in Carson

Sensitive receivers in Carson include single-family residences (Location N33 in Table F1-4) that are located near the Alameda Corridor. Details of the various monitoring stations are presented in Table F1-4. The measured short-term existing noise level, L_{eq}, at the residential receiver east of the Alameda Corridor was 64.1 dBA, and the measured CNEL was 65.7 dBA. Noise sources that contributed to the noise measurement included vehicular traffic on Alameda Blvd, Rail Operations on the Alameda Corridor, birds, lawn mowers and residential activity. Plots of the long term hourly noise levels and statistical data are shown in Figures F.4A through F.4P and Figures F.5A through F.5N.

Table F1-4. Summary of Existing Ambient Noise Measurement Data

Rec.	Loc.	Description	Date	Start	A-WEIGHTED SOUND LEVEL, dBA										Predominant Noise Sources
					L2	L8	L25	L50	L90	L99	L_{max}	L_{min}	L_{eq}	CNEL	
R1	N1	Residence at 2789 Webster	3-12-12	3:00 - 4:00 PM	62.4	56.1	53.4	50.7	47.1	45.2	75.5	44.3	53.5	54.7	Industrial Yard, Trains
			3-13-12	7:00 – 8:00 AM	67.9	63.9	53.4	46.8	42.4	41.1	71.5	40.4	58.7		Industrial Yard, Trains
			3-13-12	12:00 – 1:00 PM	60.9	54.7	51.8	49.0	44.5	42.2	70.3	41.7	52.1		Industrial Yard, Trains
R2	N2	Buddhist Temple at Willow and Webster	3-12-12	4:00 – 5:00 PM	68.2	64.3	62.1	60.2	57.6	55.8	79.3	54.4	61.7	64.0	Traffic, Trains, Temple, ICTF
			3-13-12	7:00 – 8:00 AM	69.2	63.5	61.4	59.7	56.7	54.0	77.2	52.3	61.2		Traffic, Trains, Temple, ICTF
			3-13-12	1:00 – 2:00 PM	66.5	62.1	60.5	59.0	55.8	53.1	77.4	50.5	60.0		Traffic, Trains, Temple, ICTF
R3	N3	Hudson Elementary School Playground	3-14-12	9:00 – 10:00 AM	75.8	65.9	64.0	61.7	55.9	50.7	79.6	49.0	64.5	66.6	Traffic, Children Playing, Trains
			3-14-12	12:00 – 1:00 PM	73.3	68.6	66.1	62.9	56.1	52.9	81.1	51.7	65.2		Traffic, Children Playing, Trains
			3-14-12	4:00 – 5:00 PM	70.9	68.5	66.8	65.0	60.4	56.9	75.3	54.8	65.7		Traffic, Children Playing, Trains
R4	N4	Hudson Park	3-22-12	11:45 – 12:05 AM	72.1	69.8	67.4	63.9	54.8	51.2	75.1	49.7	66.0	--	TI Freeway, Aircraft, Car
			3-22-12	3:30 – 3:50 PM	72.6	69.7	67.3	64.3	57.4	54.1	75.7	52.7	66.0		Train, Train Horn, Traffic
			3-22-12	8:39 – 8:59 AM	72.1	68.9	66.6	62.4	50.2	46.7	76.2	45.5	64.8		Traffic
R5	N5	Cabrillo High School	3-18-12	3:00 – 4:00 PM	65.7	59.4	57.9	56.5	54.2	52.8	90.8	51.4	60.1	62.8	Gardeners, Local Traffic
			3-19-12	9:00 – 10:00 AM	69.6	65.8	60.9	55.7	51.7	49.7	73.1	47.0	60.9		Birds, Local Traffic, TI Freeway, Train, Distant Construction, Airplane, Tractor, Train Horn
			3-19-12	1:00 – 2:00 PM	63.7	56.8	54.8	53.3	51.0	49.5	79.9	48.6	55.8		
R6/R7	N6/ N7	Cabrillo Child Dev Center/ Bethune School	2-11-08	1:00 – 2:00 PM	73.6	68.6	66.1	62.8	54.7	50.6	78.6	49.5	65.1	69.9	TI Freeway
			2-11-08	6:00 – 7:00 PM	74.0	70.7	68.2	64.4	56.8	53.6	77.1	52.1	66.8		TI Freeway
			2-12-08	8:00 – 9:00 AM	79.8	71.5	68.5	65.1	57.6	52.9	85.4	51.5	69.0		TI Freeway
R7A	N7A	Century Villages at Cabrillo	3-21-12	12:00 – 1:00 PM	68.4	64.2	62.2	59.9	55.8	53.4	74.3	51.9	61.3	67.3	TI Freeway, Local Traffic
			3-21-12	4:00 – 5:00 PM	70.5	67.0	65.2	63.2	58.3	54.6	80.7	52.4	64.3		TI Freeway, Local Traffic
			3-22-12	9:00 – 10:00 AM	69.9	67.1	65.2	62.8	56.3	52.5	73.6	50.1	63.8		TI Freeway, Local Traffic
R7B	N7B	Cabrillo Park	3-22-12	1:00 – 2:00 PM	71.9	68.4	65.9	62.3	53.8	50.4	77.0	49.0	64.6	69.3	TI Freeway, Local Traffic
			3-22-12	3:00 – 4:00 PM	72.7	69.7	67.7	64.8	58.0	52.4	90.0	50.4	66.8		TI Freeway, Local Traffic
			3-23-12	9:00 – 10:00 AM	72.5	69.6	67.4	64.2	54.2	49.7	75.5	47.7	65.9		TI Freeway, Local Traffic

Rec.	*Loc.*	*Description*	*Date*	*Start*	*A-WEIGHTED SOUND LEVEL, dBA*										*Predominant Noise Sources*
					L2	*L8*	*L25*	*L50*	*L90*	*L99*	L_{max}	L_{min}	L_{eq}	*CNEL*	
R8	N8	Cervera Street	1-17-08	10:30 – 10:45 AM	70.8	68.8	67.3	65.2	62.2	60.3	79.9	59.7	66.4	--	Trucks, Industrial Activity
			1-17-08	1:05 – 1:20 PM	84.1	79.1	69.7	63.6	57.3	55.3	87.6	54.9	73.4		Trucks
			1-17-08	5:00 – 5:15 PM	70.4	68.1	64.8	61.4	57.2	56.5	72.5	55.9	63.8		Trucks, Train
R9	N9	1333 Seabright Avenue	1-17-08	10:00 – 10:15 AM	71.9	62.3	58.4	56.6	53.2	52.3	81.5	51.5	62.7	--	Traffic, Industrial Activity
			1-17-08	12:48 – 1:03 PM	68.1	63.3	60.6	58.8	56.6	54.1	93.3	53.0	66.4		Traffic, Industrial Activity, Plane
			1-17-08	4:42 – 4:57 PM	70.3	66.3	62.8	60.6	58.3	56.7	81.8	55.2	64.1		Industrial Activity, Traffic, Radio

Table F1-4. Summary of Ambient Noise Measurement Data, continued

Rec.	Loc.	Description	Date	Start	A-WEIGHTED SOUND LEVEL, dBA L2	L8	L25	L50	L90	L99	L_{max}	L_{min}	L_{eq}	CNEL	Predominant Noise Sources
R10	N10	1330 Canal Street	1-17-08	9:40 – 9:55 AM	71.7	68.2	65.6	63.2	59.2	55.4	89.2	54.5	66.5	--	Industrial Activity, Traffic
			1-17-08	12:27 – 12:42 PM	74.6	70.6	67.4	65.2	60.0	54.7	80.0	53.5	67.1		Industrial Activity, Traffic
			1-17-08	4:20 – 4:35 PM	76.6	73.2	69.9	67.3	61.6	56.3	80.2	54.2	69.4		Industrial Activity, Traffic
R11	N11	Cesar Chavez Park	1-15-08	10:00 – 10:15 AM	67.0	65.7	63.7	62.0	57.0	53.7	69.2	52.5	62.6	--	Traffic on 710, 6th Street, Aircraft
			1-15-08	1:25 – 1:40 PM	67.5	65.7	64.6	62.7	59.5	57.3	70.7	56.8	63.2		710 Traffic, Aircraft
			1-15-08	5:01 – 5:16 PM	69.3	67.5	66.3	65.3	63.0	60.0	78.8	58.9	65.7		710 Traffic, Children Playing
R12	N12	Pocket Wetland Reserve	1-15-08	9:37 – 9:52 AM	59.0	57.5	55.8	54.9	53.2	52.0	61.7	51.5	55.4	--	Trucks, Birds
			1-15-08	12:55 – 1:10 PM	59.5	58.7	57.4	56.2	54.3	53.4	61.3	52.4	56.6		Trucks
			1-15-08	4:37 – 4:52 PM	66.2	60.7	58.8	57.5	56.0	54.2	72.4	53.7	59.2		Trucks, RV Park, Helicopter
R13	N13	Pierpoint Landing/ Shoreline Park	1-10-08	10:25 – 10:40 AM	63.6	58.9	56.8	55.5	53.9	52.5	68.7	52.2	56.9	--	Aquarium P/A, Birds, Traffic, Helicopter, Plane
			1-10-08	1:30 – 1:45 PM	62.4	58.4	56.4	55.4	54.0	53.4	66.4	52.9	56.4		Birds, Parking Lot Vehicles, Traffic, G/A
			1-10-08	4:45 – 5:00 PM	72.1	71.3	70.6	54.9	53.3	52.5	72.5	51.7	66.3		Birds, Local Traffic, Parking Lot, Truck Idling
R14	N14	Queen Mary Park	1-15-08	9:10 – 9:25 AM	73.2	69.7	67.3	65.3	59.4	52.7	78.8	51.4	66.5	--	Trucks, Helicopter
			1-15-08	12:35 – 12:50 PM	71.4	67.7	65.2	62.4	57.7	55.2	76.1	54.2	64.3		Trucks, People Talking, Airplane
			1-15-08	4:13 – 4:28 PM	72.3	70.0	67.9	66.3	62.7	58.3	80.7	56.5	67.3		Trucks, Bus
R15	N15	Fire Station #6	1-10-08	9:30 – 9:45 AM	64.9	63.7	61.8	59.9	57.0	54.5	66.0	54.5	60.7	--	Heavy Trucks on Queens Way
			1-10-08	1:05 – 1:20 PM	73.3	65.0	62.9	61.5	58.8	54.1	77.4	53.8	63.9		Traffic, Distant Aircraft, Firetrucks
			1-10-08	4:20 – 4:35 PM	80.6	73.6	66.5	63.3	60.1	58.1	85.3	57.3	70.4		Traffic on Queens Way, Aircraft, Helicopter
R16	N16	Fire Station #15 @ Pier F Avenue	1-10-08	9:57 – 10:13 AM	64.6	62.1	59.6	57.8	55.3	54.0	70.0	53.6	59.1	--	Heavy Trucks
			1-10-08	12:38 – 12:53 PM	65.3	63.5	60.9	58.8	55.8	54.8	69.2	54.2	60.1		Heavy Trucks, Seagulls, People Talking, Boat

			1-10-08	3:55 – 4:10 PM	64.9	62.9	60.4	58.4	55.1	53.5	70.9	52.6	59.7		Heavy Trucks, Train Horn, A/C, Birds, Copter
			3-25-08	6:00 – 7:00 PM	68.4	66.8	65.3	63.9	62.0	60.4	77.6	59.5	64.6		Route 47, Pier Avenue
R16A	N16A	New Fire Station #24 @ SR47	3-26-08	8:00 – 9:00 AM	68.8	67.3	65.9	64.8	63.1	61.9	74.9	60.8	65.3	69.5	Route 47, Pier Avenue
			3-26-08	1:00 – 2:00 PM	69.7	67.9	66.4	65.1	63.1	61.5	74.4	60.6	65.7		Route 47, Pier Avenue
Rec.	*Loc.*	*Description*	*Date*	*Start*	*A-WEIGHTED SOUND LEVEL, dBA*										*Predominant Noise Sources*

Table F1-4. Summary of Ambient Noise Measurement Data, continued

Rec.	Loc.	Description	Date	Start	A-WEIGHTED SOUND LEVEL, dBA L2	L8	L25	L50	L90	L99	L_{max}	L_{min}	L_{eq}	CNEL	Predominant Noise Sources
			1-11-08	9:41 – 9:56 AM	66.4	62.1	59.5	58.5	57.0	56.4	76.1	55.7	60.2		Distant Traffic, Ship Generators, Firetruck
R17	N17	Fire Station #24	1-11-08	1:05 – 1:20 PM	67.5	61.0	58.9	57.6	56.0	55.1	70.9	54.3	59.5	--	Ship Generators, Train, Back Up Beeper, Airplane, Traffic, Copter
			1-11-08	4:53 – 5:08 PM	64.1	61.5	60.0	58.6	56.9	56.0	66.1	55.6	59.3		Ship, Firestation, Train Horn, Distant Traffic
			1-11-08	9:15 – 9:30 AM	79.0	77.1	73.1	69.0	62.4	58.6	83.8	56.6	72.2		Traffic on Ferry, Train Locomotives and Rail/Wheel Squeak, P/A
R18	N18	Fire Station #210 @ Ferry Street												--	
			1-11-08	12:35 – 12:50 PM	78.4	73.7	69.9	66.0	57.7	54.1	85.4	52.8	69.0		Traffic, LAFD Siren
			1-11-08	4:28 – 4:43 PM	77.4	74.7	70.1	65.6	57.1	52.4	87.2	51.7	70.0		Traffic on Ferry
			1-14-08	1:00 – 2:00 PM	69.3	68.1	67.0	65.8	63.4	61.2	74.4	59.6	66.1		Traffic, Trains, Port Operations
R19	N19	539 Shields Drive												71.2	
			1-14-08	4:00 – 5:00 PM	73.0	73.0	67.6	66.4	64.2	62.2	81.0	60.9	67.3		Traffic, Trains, Port Operations
			1-15-08	7:00 – 8:00 AM	72.1	72.1	69.8	69.0	67.2	66.0	89.7	65.2	69.4		Traffic, Trains, Port Operations
			1-17-08	1:00 – 2:00 PM	68.8	63.8	58.8	56.4	53.2	51.0	84.7	49.6	62.2		Traffic, Trains, Marina, Industrial Operations
R20	N20	Leeward Bay Marina	1-17-08	6:00 – 7:00 PM	81.7	66.7	60.6	58.4	55.6	53.6	100.1	52.5	73.2	80.3	Traffic, Trains, Marina, Industrial Operations
			1-18-08	8:00 – 9:00 AM	82.2	66.0	61.2	58.8	56.3	55.2	109.3	54.9	81.7		Traffic, Trains, Marina, Industrial Operations
			1-15-08	1:00 – 2:00 PM	80.0	77.4	72.4	68.0	58.0	56.1	87.2	54.9	72.5		Traffic, Trains, Marina, Industrial Operations
R21	N21	Island Yacht Marina	1-15-08	5:00 – 6:00 PM	85.8	77.9	70.4	66.8	60.5	56.4	98.9	55.5	75.6	79.3	Traffic, Trains, Marina, Industrial Operations
			1-15-08	8:00 – 9:00 AM	83.6	75.6	71.2	66.0	58.0	54.7	94.1	53.8	73.3		Traffic, Trains, Marina, Industrial Operations
			1-11-08	10:14 – 10:29 AM	57.5	54.6	53.2	52.2	51.1	50.6	66.3	50.2	53.1		Port Ops, Birds, Local Traffic
R22	N22	Peninsula Road Marina												--	
			1-11-08	1:33 – 1:48 PM	64.4	60.1	58.2	57.4	56.2	55.5	72.5	55.1	58.7		Port Ops, Live Aboard

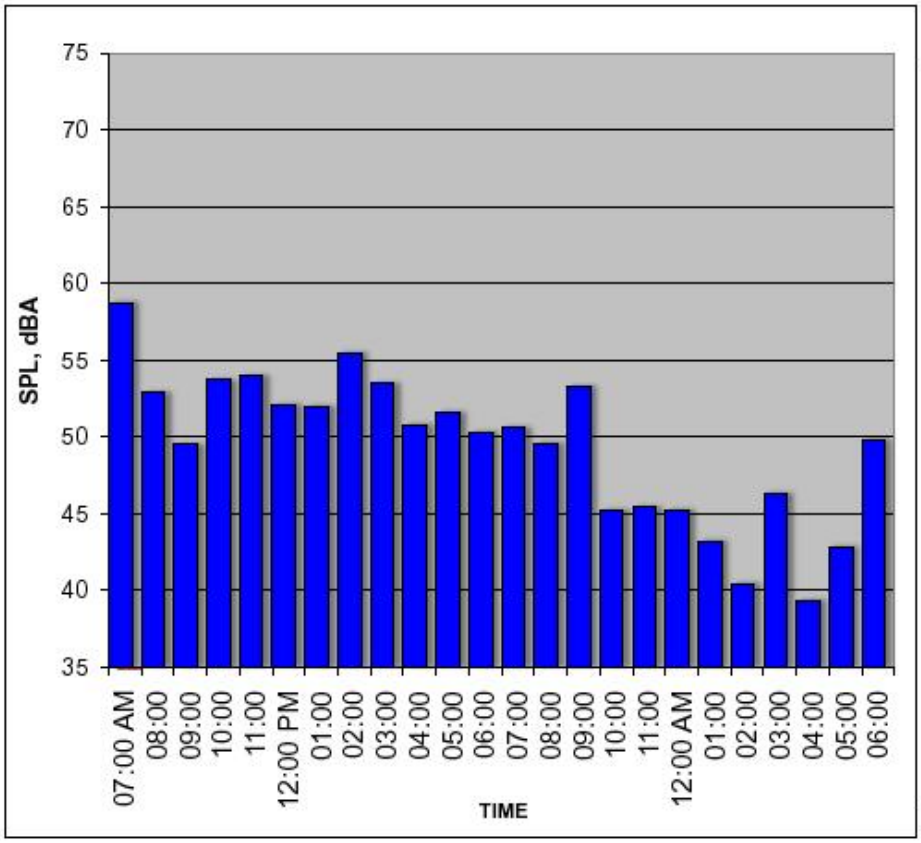
			1-11-08	4:00 – 4:15 PM	64.0	59.9	55.6	54.4	52.5	51.7	72.2	51.4	56.7		Activities Port Ops, Local Traffic, Live
					A-WEIGHTED SOUND LEVEL, dBA										
Rec.	*Loc.*	*Description*	*Date*	*Start*	*L2*	*L8*	*L25*	*L50*	*L90*	*L99*	L_{max}	L_{min}	L_{eq}	*CNEL*	*Predominant Noise Sources*

Table F1-4. Summary of Ambient Noise Measurement Data, continued

Rec.	Loc.	Description	Date	Start	A-WEIGHTED SOUND LEVEL, dBA L2	L8	L25	L50	L90	L99	L_{max}	L_{min}	L_{eq}	CNEL	Predominant Noise Sources
			3-22-12	9:11 – 9:31 AM	72.6	64.3	62.7	61.7	60.4	59.7	81.6	59.2	63.7		Local Traffic, Trains, Wrecking Yard
R28	N28	1919 East I Street	3-22-12	12:25 – 12:45 PM	74.2	68.4	66.2	64.4	62.4	60.9	81.7	60.0	60.4	--	Local Traffic, Trains, Wrecking Yard
			3-22-12	4:00 – 4:20 PM	74.1	64.7	61.3	60.2	58.4	57.6	78.6	56.3	62.9		Refinery Truck Traffic, Train Horn
			1-14-08	10:25 – 10:40 AM	74.7	72.8	70.0	66.8	60.9	53.9	76.9	53.0	68.6		Trucks
R29	N29	1710 Mauretania Street	1-14-08	1:10 – 1:25 PM	75.3	72.3	68.2	64.7	57.3	54.2	81.0	52.6	67.6	--	Trucks
			1-14-08	5:01 – 5:16 PM	76.8	74.2	71.2	68.5	62.7	58.9	81.8	57.8	70.4		Trucks
			4-26-11	1:00 – 2:00 PM	72.2	68.1	66.7	64.7	60.7	58.0	85.5	55.4	66.2		Trucks, Trains, Site Activity
			4-26-11	4:00 – 5:00 PM	72.3	69.9	67.9	66.2	62.4	59.8	80.5	57.0	67.1	71.3	Trucks, Trains, Site Activity
			4-27-11	9:00 – 10:00 AM	72.2	68.6	66.2	63.8	58.8	55.1	94.8	53.0	67.0		Trucks, Trains, Site Activity
		Stephens Middle School	3-19-12	11:00 – 12:00 AM	62.6	56.8	55.2	53.8	51.7	50.3	71.7	49.1	55.2		Students, Traffic
R30	N30		3-20-12	4:00 – 5:00 PM	67.0	65.2	64.7	64.2	47.5	43.6	72.0	42.6	63.2	61.2	Students, Traffic
		Classroom PC2	3-20-12	8:00 – 9:00 PM	69.9	62.9	58.7	55.2	50.7	48.5	77.5	47.5	59.7		Students, Traffic
			3-13-12	7:00 – 8:00 AM	64.0	58.4	57.2	56.2	55.0	54.1	68.6	53.7	57.0		Children Playing
R31	N31	Webster School Classroom B-1	3-13-12	1:00 – 2:00 PM	63.3	59.2	57.0	55.4	52.0	49.1	67.9	47.2	56.5	59.6	Traffic, Children Playing
			3-13-12	4:00 – 5:00 PM	65.7	58.2	56.6	55.3	53.9	53.0	73.5	52.4	57.0		Traffic, Children Playing
			4-28-11	6:00 – 7:00 PM	75.9	69.5	59.1	55.0	51.6	49.6	82.9	48.7	64.9		Traffic, Trains, Industrial Yard
R32	N32	1619 Cruces St	4-29-11	9:00 – 10:00 AM	77.2	72.2	62.6	56.8	52.9	51.3	89.3	50.6	67.2	69.3	Traffic, Trains, Industrial Yard
			4-29-11	2:00 – 3:00 PM	76.1	71.7	62.8	55.7	51.2	49.5	90.6	49.0	66.8		Traffic, Trains, Industrial Yard
			4-27-11	2:00 – 3:00 PM	68.6	66.2	63.3	60.3	55.7	53.4	77.1	51.2	62.4		Traffic, Trains, Birds, Gardener
R33	N33	21843 Salmon Ave	4-27-11	4:00 – 5:00 PM	68.2	66.0	63.5	61.1	56.4	53.2	77.4	50.8	64.1	65.7	Traffic, Trains, Birds
			4-28-11	8:00 – 9:00 AM	66.3	64.5	63.1	61.2	55.6	51.0	76.9	49.5	61.8		Traffic, Trains, Birds
			7-16-12	1:00 – 2:00 PM	79.2	76.2	74.0	66.6	61.3	59.4	96.1	58.8	72.2		Trucks
R34	N34	Mambo Sound & Recording Studio	7-16-12	4:00 – 5:00 PM	79.5	74.5	68.9	64.9	60.4	58.8	96.6	58.1	70.8	75.2	Trucks
			7-17-12	9:00 – 10:00 AM	79.7	74.9	69.2	64.9	60.9	59.2	89.0	58.7	70.6		Trucks

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	RESIDENCE AT 2789 WEBSTER	Date:	3/12/12-3/13/12
Location:	REAR YARD		
Noise Sources:	INDUSTRIAL YARD, STEPHENS SCHOOL ACTIVITY, ICTF, TRAINS, LOCAL TRAFFIC	Position:	N-1



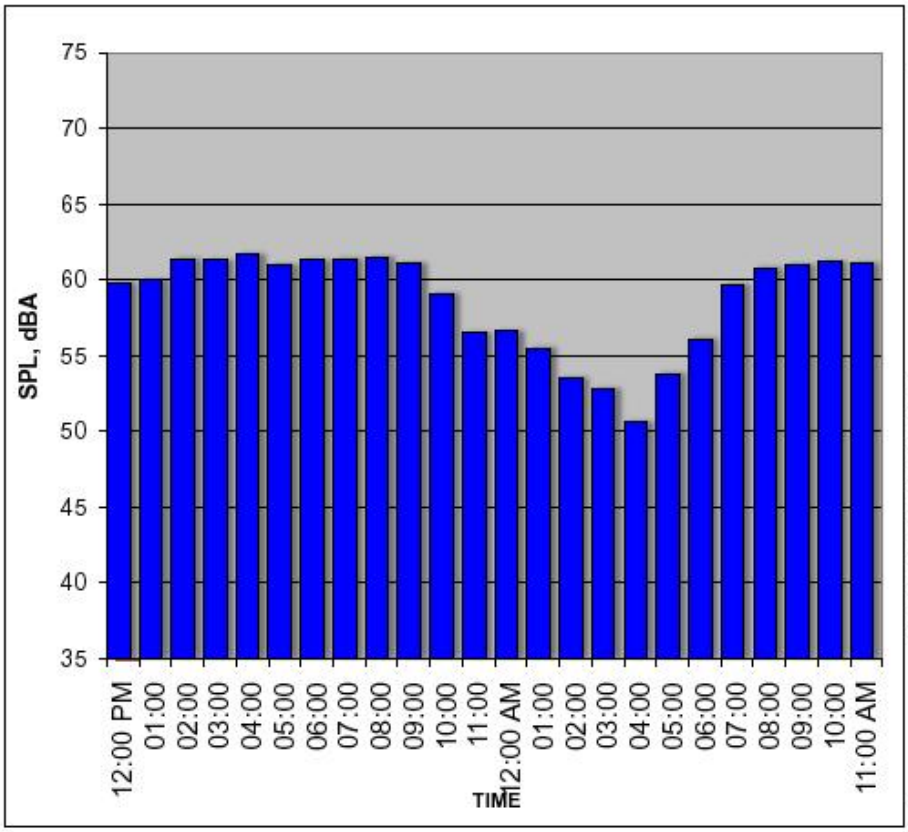
TIME	HNL, dB(A)
07:00 - 08:00 AM	58.7
08:00 - 09:00 AM	52.9
09:00 - 10:00 AM	49.5
10:00 - 11:00 AM	53.7
11:00 - 12:00 PM	54.0
12:00 - 01:00 PM	52.1
01:00 - 02:00 PM	52.0
02:00 - 03:00 PM	55.5
03:00 - 04:00 PM	53.5
04:00 - 05:00 PM	50.8
05:00 - 06:00 PM	51.6
06:00 - 07:00 PM	50.3
07:00 - 08:00 PM	50.6
08:00 - 09:00 PM	49.6
09:00 - 10:00 PM	53.3
10:00 - 11:00 PM	45.2
11:00 - 12:00 AM	45.4
12:00 - 01:00 AM	45.2
01:00 - 02:00 AM	43.2
02:00 - 03:00 AM	40.4
03:00 - 04:00 AM	46.3
04:00 - 05:00 AM	39.3
05:00 - 06:00 AM	42.8
06:00 - 07:00 AM	49.8
CNEL:	54.7

Notes:
Refer to field data sheet

Figure F1-4A Hourly Noise Level Measurement Data at Location N-1

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	BUDDHIST TEMPLE	Date:	3/12/12-3/13/12
Location:	OUTDOOR SPACE FACING TI FREEWAY		
Noise Sources:	TRAFFIC ON TI FREEWAY/WILLOW/WEBSTER, ICTF, TRAINS, TEMPLE ACTIVITIES	Position:	N-2



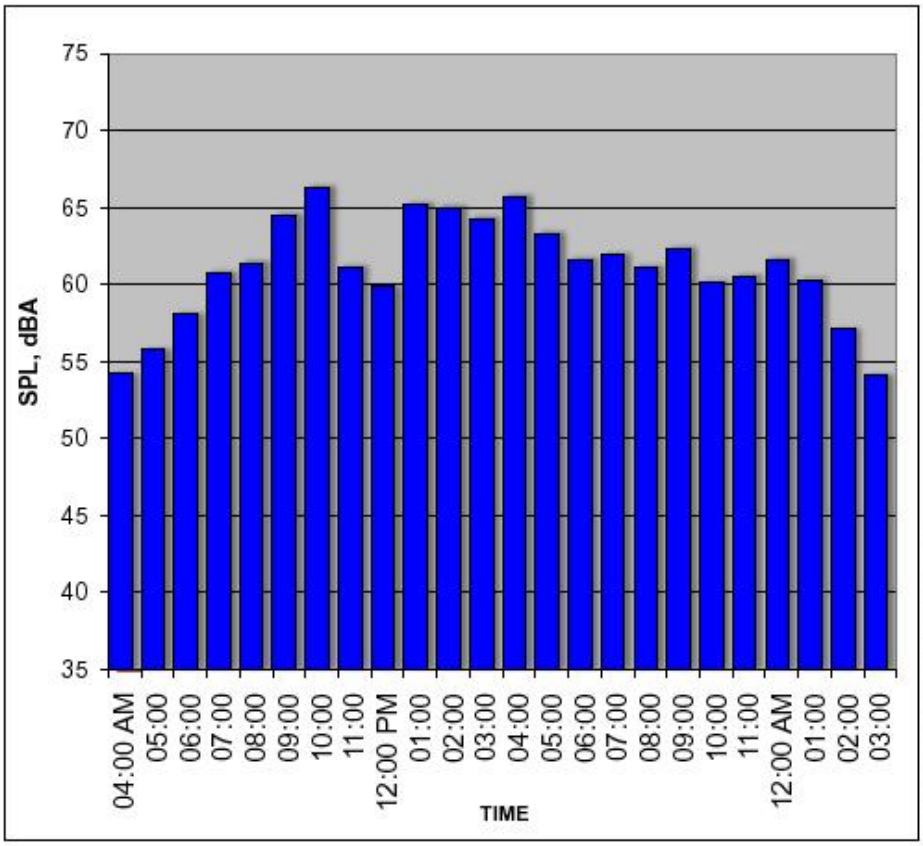
TIME	HNL, dB(A)
12:00 - 01:00 PM	59.8
01:00 - 02:00 PM	60.0
02:00 - 03:00 PM	61.4
03:00 - 04:00 PM	61.3
04:00 - 05:00 PM	61.7
05:00 - 06:00 PM	61.0
06:00 - 07:00 PM	61.3
07:00 - 08:00 PM	61.4
08:00 - 09:00 PM	61.5
09:00 - 10:00 PM	61.1
10:00 - 11:00 PM	59.1
11:00 - 12:00 AM	56.5
12:00 - 01:00 AM	56.6
01:00 - 02:00 AM	55.5
02:00 - 03:00 AM	53.5
03:00 - 04:00 AM	52.8
04:00 - 05:00 AM	50.6
05:00 - 06:00 AM	53.8
06:00 - 07:00 AM	56.1
07:00 - 08:00 AM	59.7
08:00 - 09:00 AM	60.8
09:00 - 10:00 AM	61.0
10:00 - 11:00 AM	61.2
11:00 - 12:00 PM	61.1
CNEL:	64.0

Notes:
Refer to field data sheet

Figure F1-4B Hourly Noise Level Measurement Data at Location N-2

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	HUDSON ELEMENTARY SCHOOL	Date:	3/14/12-3/15/12
Location:	PLAYGROUND		
Noise Sources:	TRAFFIC ON TERMINAL ISLAND FREEWAY, SCHOOL ACTIVITIES, INDUSTRIAL ACTIVITIES, LOCAL TRAFFIC, TRAINS	Position:	N-3



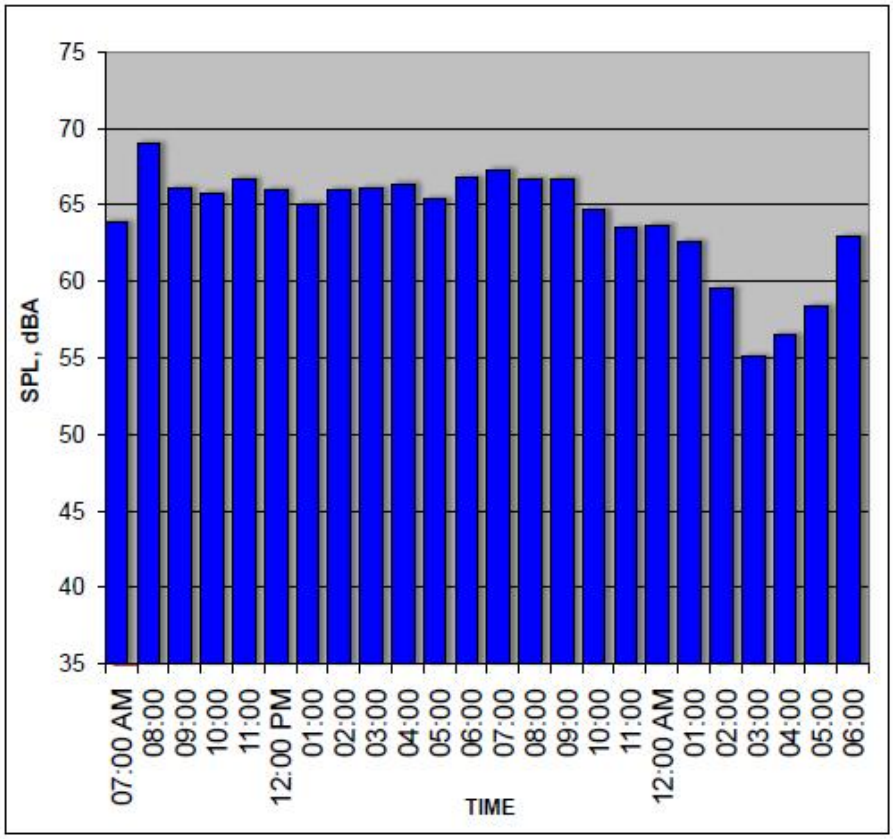
TIME	HNL, dB(A)
04:00 - 05:00 AM	54.2
05:00 - 06:00 AM	55.8
06:00 - 07:00 AM	58.1
07:00 - 08:00 AM	60.7
08:00 - 09:00 AM	61.4
09:00 - 10:00 AM	64.5
10:00 - 11:00 AM	66.3
11:00 - 12:00 PM	61.1
12:00 - 01:00 PM	59.9
01:00 - 02:00 PM	65.2
02:00 - 03:00 PM	65.0
03:00 - 04:00 PM	64.3
04:00 - 05:00 PM	65.7
05:00 - 06:00 PM	63.3
06:00 - 07:00 PM	61.6
07:00 - 08:00 PM	61.9
08:00 - 09:00 PM	61.1
09:00 - 10:00 PM	62.3
10:00 - 11:00 PM	60.2
11:00 - 12:00 AM	60.5
12:00 - 01:00 AM	61.6
01:00 - 02:00 AM	60.3
02:00 - 03:00 AM	57.1
03:00 - 04:00 AM	54.1
CNEL:	66.6

Notes:
Refer to field data sheet

Figure F1-4C Hourly Noise Level Measurement Data at Location N-3

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	CABRILLO HIGH SCHOOL	Date:	3/18/12-3/19/12
Location:			
Noise Sources:	LOCAL TRAFFIC, CONSTRUCTION, AIRCRAFTS, TI FREEWAY, TRAIN HORN	Position:	N-5



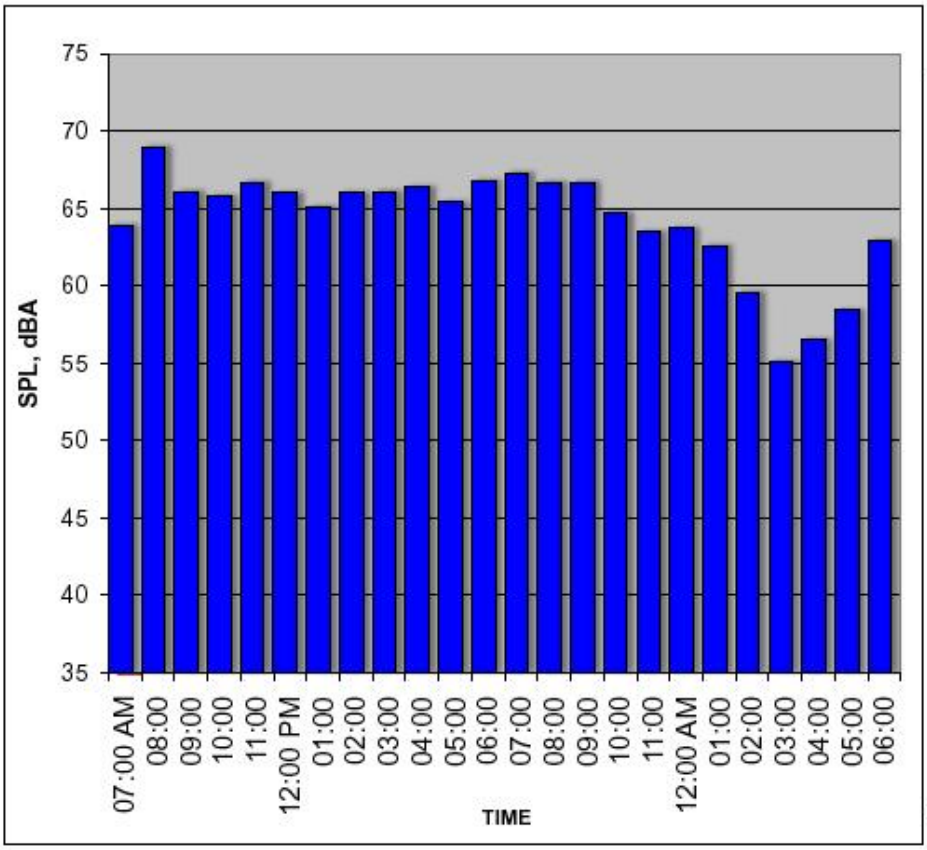
TIME	HNL, dB(A)
07:00 - 08:00 AM	58.9
08:00 - 09:00 AM	55.7
09:00 - 10:00 AM	60.9
10:00 - 11:00 AM	60.5
11:00 - 12:00 PM	60.6
12:00 - 01:00 PM	54.9
01:00 - 02:00 PM	55.8
02:00 - 03:00 PM	60.0
03:00 - 04:00 PM	60.1
04:00 - 05:00 PM	57.6
05:00 - 06:00 PM	58.9
06:00 - 07:00 PM	58.4
07:00 - 08:00 PM	58.5
08:00 - 09:00 PM	57.9
09:00 - 10:00 PM	57.6
10:00 - 11:00 PM	55.8
11:00 - 12:00 AM	57.1
12:00 - 01:00 AM	57.1
01:00 - 02:00 AM	51.5
02:00 - 03:00 AM	52.4
03:00 - 04:00 AM	52.9
04:00 - 05:00 AM	53.8
05:00 - 06:00 AM	56.0
06:00 - 07:00 AM	56.9
CNEL:	62.8

Notes:
Refer to field data sheet

Figure F1-4D Hourly Noise Level Measurement Data at Location N-5

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	CABRILLO CHILD DEVELOPMENT CENTER	Date:	3/11/12-3/12/12
Location:	WEST PROPERTY LINE AT PLAYGROUND		
Noise Sources:	TRAFFIC ON TERMINAL ISLAND FREEWAY, CHILDREN @ PLAYGROUND, INDUSTRIAL ACTIVITY, TRAINS	Position:	N-6



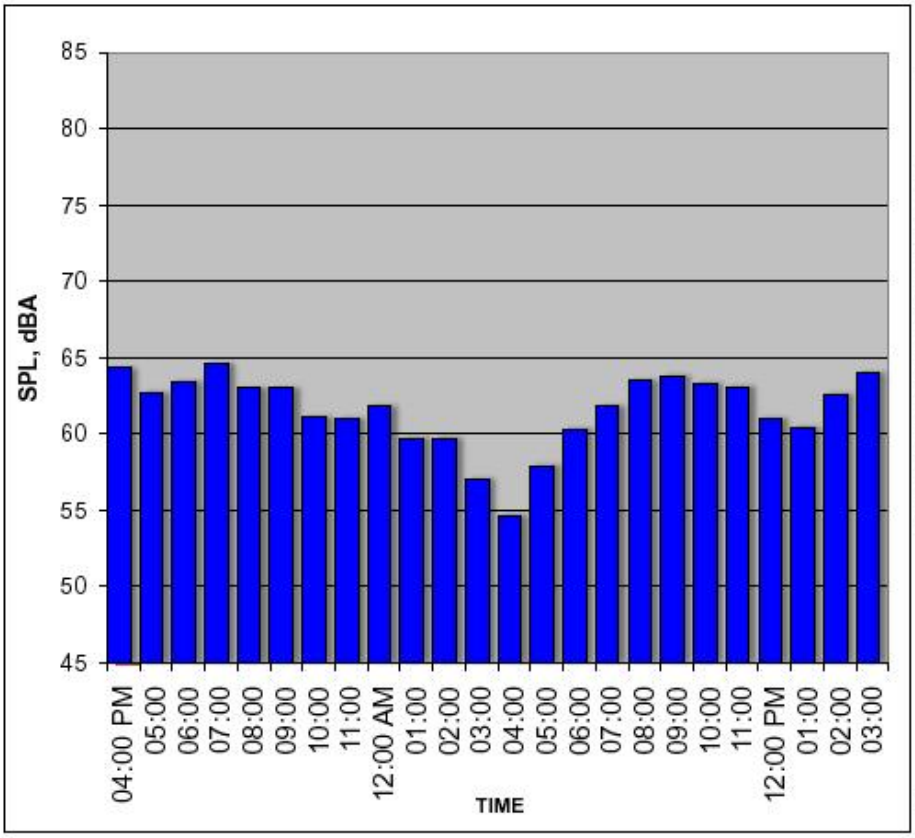
TIME	HNL, dB(A)
07:00 - 08:00 AM	63.9
08:00 - 09:00 AM	69.0
09:00 - 10:00 AM	66.1
10:00 - 11:00 AM	65.8
11:00 - 12:00 PM	66.7
12:00 - 01:00 PM	66.0
01:00 - 02:00 PM	65.1
02:00 - 03:00 PM	66.0
03:00 - 04:00 PM	66.1
04:00 - 05:00 PM	66.4
05:00 - 06:00 PM	65.4
06:00 - 07:00 PM	66.8
07:00 - 08:00 PM	67.3
08:00 - 09:00 PM	66.7
09:00 - 10:00 PM	66.7
10:00 - 11:00 PM	64.7
11:00 - 12:00 AM	63.5
12:00 - 01:00 AM	63.7
01:00 - 02:00 AM	62.6
02:00 - 03:00 AM	59.6
03:00 - 04:00 AM	55.1
04:00 - 05:00 AM	56.5
05:00 - 06:00 AM	58.4
06:00 - 07:00 AM	62.9
CNEL:	69.9

Notes:
Refer to field data sheet

Figure F1-4E Hourly Noise Level Measurement Data at Location N-6

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	VILLAGES OF CABRILLO	Date:	3/21/12-3/22/12
Location:	OPEN SPACE ADJACENT TO GUARD GATE		
Noise Sources:	TRAFFIC, TRAINS, INDUSTRIAL NOISE	Position:	N-7A



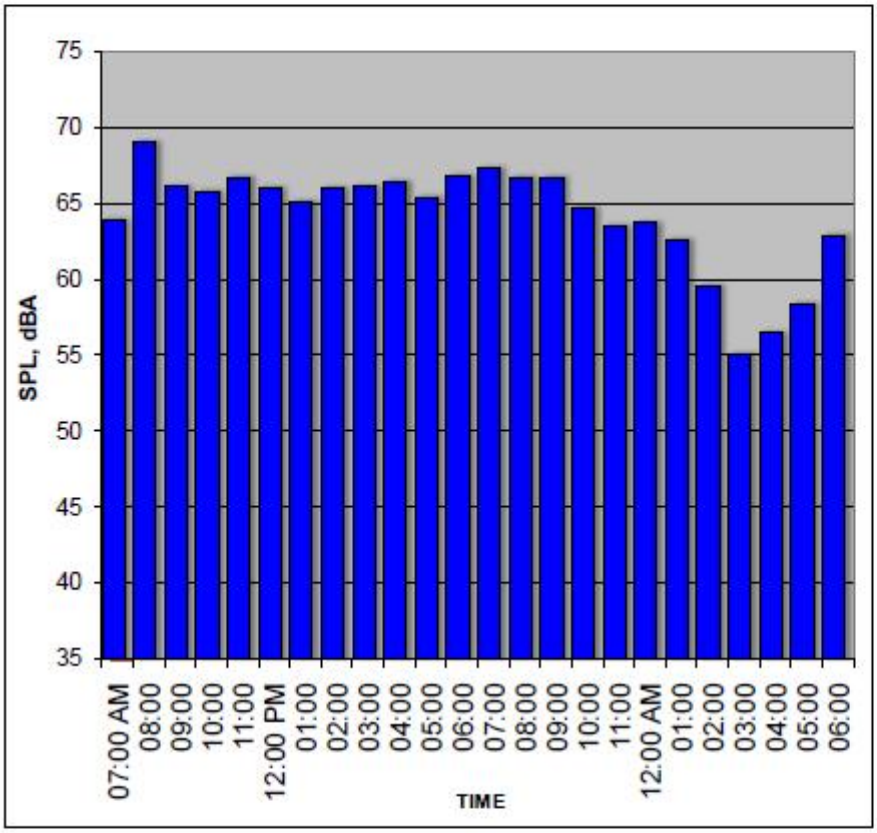
TIME	HNL, dB(A)
04:00 - 05:00 PM	64.3
05:00 - 06:00 PM	62.7
06:00 - 07:00 PM	63.4
07:00 - 08:00 PM	64.6
08:00 - 09:00 PM	63.0
09:00 - 10:00 PM	63.0
10:00 - 11:00 PM	61.1
11:00 - 12:00 AM	61.0
12:00 - 01:00 AM	61.8
01:00 - 02:00 AM	59.7
02:00 - 03:00 AM	59.7
03:00 - 04:00 AM	57.0
04:00 - 05:00 AM	54.6
05:00 - 06:00 AM	57.9
06:00 - 07:00 AM	60.3
07:00 - 08:00 AM	61.8
08:00 - 09:00 AM	63.5
09:00 - 10:00 AM	63.8
10:00 - 11:00 AM	63.3
11:00 - 12:00 PM	63.1
12:00 - 01:00 PM	61.0
01:00 - 02:00 PM	60.4
02:00 - 03:00 PM	62.6
03:00 - 04:00 PM	64.0
CNEL:	67.3

Notes:
Refer to field data sheet

Figure F1-4F Hourly Noise Level Measurement Data at Location N-7A

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	CABRILLO PARK	Date:	3/22/12-3/23/12
Location:			
Noise Sources:	TI FWY, LOCAL TRAFFIC	Position:	N-7B



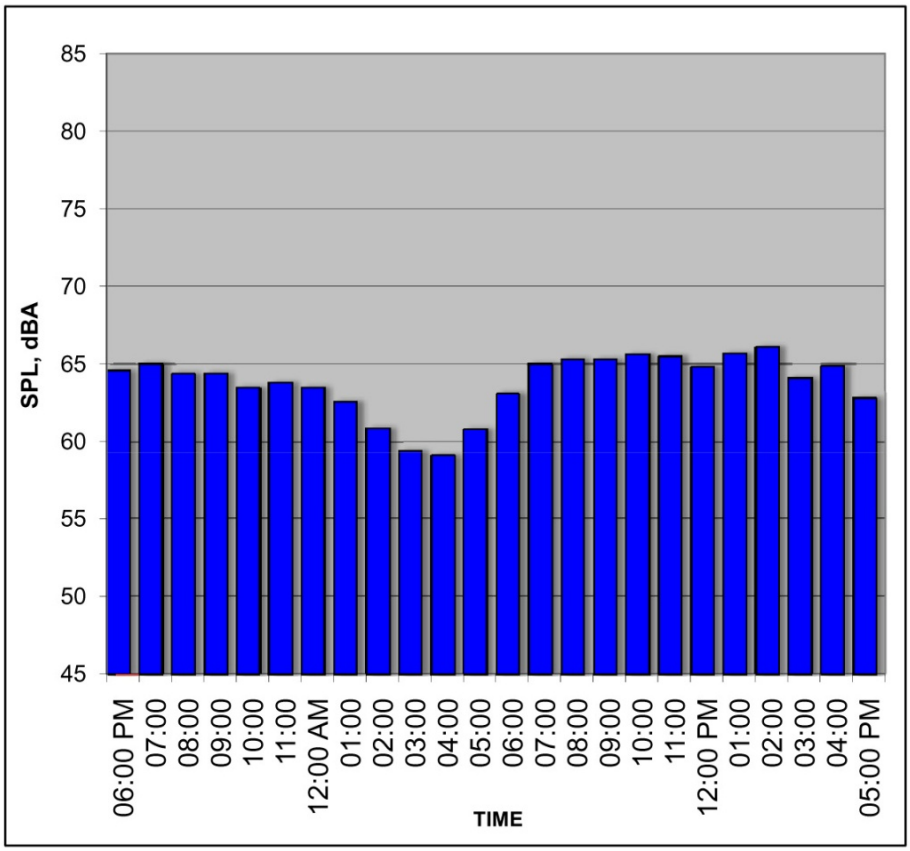
TIME	HNL, dB(A)
07:00 - 08:00 AM	63.0
08:00 - 09:00 AM	64.4
09:00 - 10:00 AM	65.9
10:00 - 11:00 AM	65.8
11:00 - 12:00 PM	66.6
12:00 - 01:00 PM	67.5
01:00 - 02:00 PM	64.6
02:00 - 03:00 PM	66.2
03:00 - 04:00 PM	66.8
04:00 - 05:00 PM	66.5
05:00 - 06:00 PM	64.4
06:00 - 07:00 PM	65.5
07:00 - 08:00 PM	65.7
08:00 - 09:00 PM	64.0
09:00 - 10:00 PM	65.2
10:00 - 11:00 PM	63.3
11:00 - 12:00 AM	63.4
12:00 - 01:00 AM	63.8
01:00 - 02:00 AM	62.6
02:00 - 03:00 AM	62.2
03:00 - 04:00 AM	57.4
04:00 - 05:00 AM	54.7
05:00 - 06:00 AM	57.7
06:00 - 07:00 AM	60.5
CNEL:	69.3

Notes:
Refer to field data sheet

Figure F1-4G Hourly Noise Level Measurement Data at Location N-7B

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	**SCIG**		
Address:	**NEW FIRESTATION 24**	**Date:**	**3/25/08 - 3/26/08**
Location:	**FRONT YARD FACING ROUTE 47**		
Noise Sources:	**TRAFFIC, TRAINS, INDUSTRIAL NOISE**	**Position:**	**N-16A**



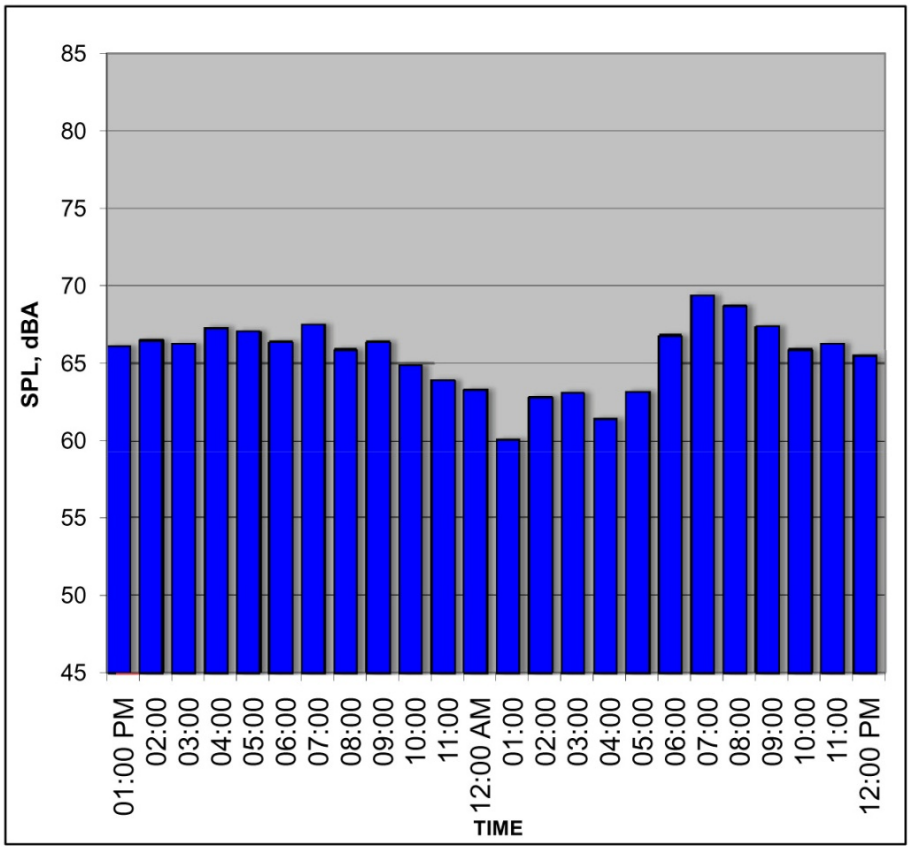
TIME	HNL, dB(A)
06:00 - 07:00 PM	64.6
07:00 - 08:00 PM	65.0
08:00 - 09:00 PM	64.4
09:00 - 10:00 PM	64.4
10:00 - 11:00 PM	63.5
11:00 - 12:00 AM	63.8
12:00 - 01:00 AM	63.5
01:00 - 02:00 AM	62.6
02:00 - 03:00 AM	60.9
03:00 - 04:00 AM	59.4
04:00 - 05:00 AM	59.1
05:00 - 06:00 AM	60.8
06:00 - 07:00 AM	63.1
07:00 - 08:00 AM	65.0
08:00 - 09:00 AM	65.3
09:00 - 10:00 AM	65.3
10:00 - 11:00 AM	65.6
11:00 - 12:00 PM	65.5
12:00 - 01:00 PM	64.8
01:00 - 02:00 PM	65.7
02:00 - 03:00 PM	66.1
03:00 - 04:00 PM	64.1
04:00 - 05:00 PM	64.9
05:00 - 06:00 PM	62.8
CNEL:	69.5

Notes:
Refer to field data sheet

Figure F1-4H Hourly Noise Level Measurement Data at Location N-16A

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	**SCIG**		
Address:	**539 SHIELDS DRIVE**	**Date:**	**1/14/08-1/15/08**
Location:	**FRONT YARD FACING PACIFIC AND PORT OF LA**		
Noise Sources:	**TRAFFIC ON PACIFIC, TRAINS, PORT OF LA OPERATIONS**	**Position:**	**N-19**



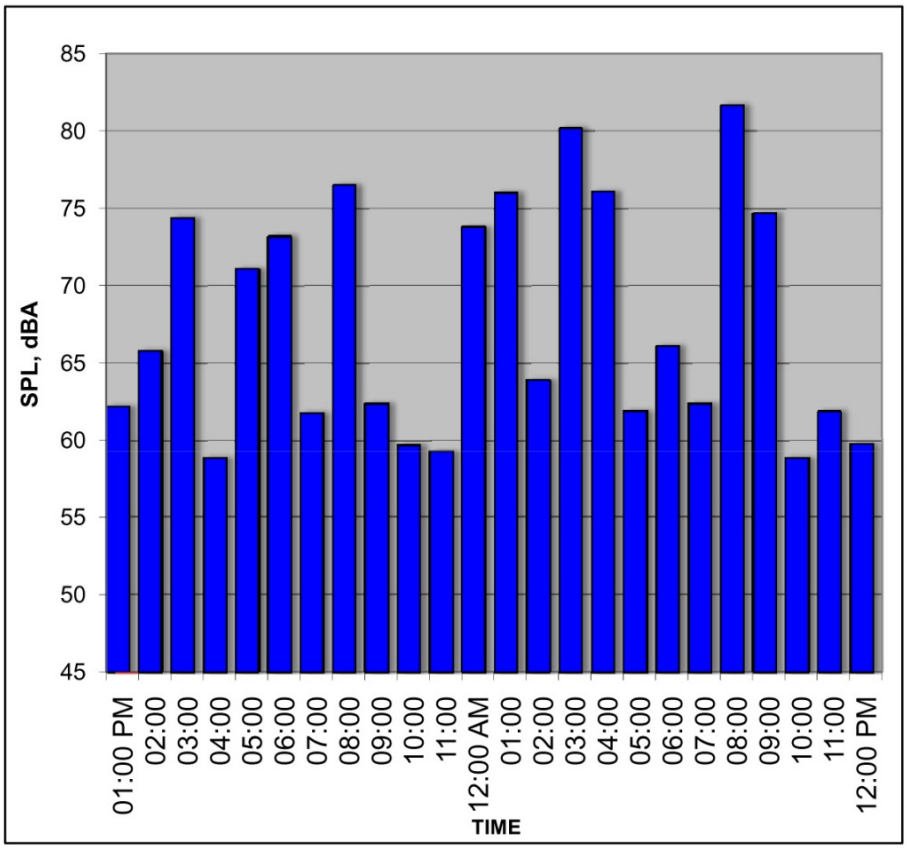
TIME	HNL, dB(A)
01:00 - 02:00 PM	66.1
02:00 - 03:00 PM	66.5
03:00 - 04:00 PM	66.3
04:00 - 05:00 PM	67.3
05:00 - 06:00 PM	67.1
06:00 - 07:00 PM	66.4
07:00 - 08:00 PM	67.5
08:00 - 09:00 PM	65.9
09:00 - 10:00 PM	66.4
10:00 - 11:00 PM	64.9
11:00 - 12:00 AM	63.9
12:00 - 01:00 AM	63.3
01:00 - 02:00 AM	60.1
02:00 - 03:00 AM	62.8
03:00 - 04:00 AM	63.1
04:00 - 05:00 AM	61.4
05:00 - 06:00 AM	63.2
06:00 - 07:00 AM	66.8
07:00 - 08:00 AM	69.4
08:00 - 09:00 AM	68.7
09:00 - 10:00 AM	67.4
10:00 - 11:00 AM	65.9
11:00 - 12:00 PM	66.3
12:00 - 01:00 PM	65.5
CNEL:	71.2

Notes:
Refer to field data sheet

Figure F1-4I Hourly Noise Level Measurement Data at Location N-19

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	**SCIG**		
Address:	**LEEWARD BAY MARINA**	**Date:**	**1/17/08-1/18/08**
Location:	**BOAT SLIP FACING RAILROAD**		
Noise Sources:	**TRAFFIC, TRAINS, MARINA NOISE, INDUSTRIAL NOISE**	**Position:**	**N-20**



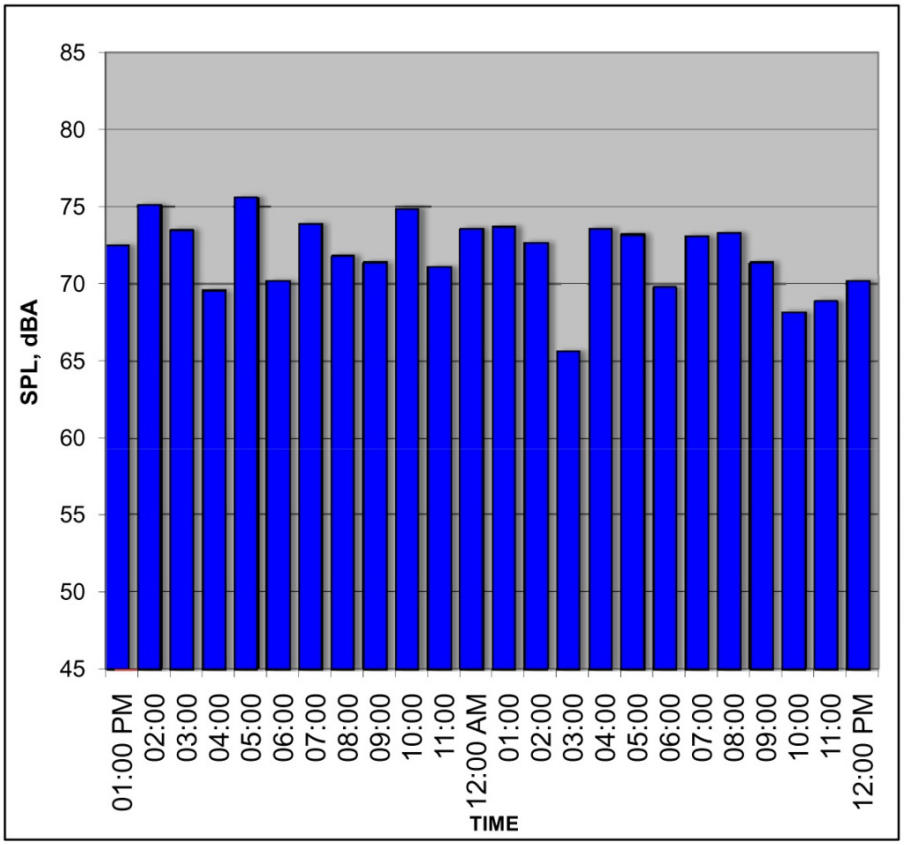
TIME	HNL, dB(A)
01:00 - 02:00 PM	62.2
02:00 - 03:00 PM	65.8
03:00 - 04:00 PM	74.4
04:00 - 05:00 PM	58.9
05:00 - 06:00 PM	71.1
06:00 - 07:00 PM	73.2
07:00 - 08:00 PM	61.8
08:00 - 09:00 PM	76.5
09:00 - 10:00 PM	62.4
10:00 - 11:00 PM	59.7
11:00 - 12:00 AM	59.3
12:00 - 01:00 AM	73.8
01:00 - 02:00 AM	76.0
02:00 - 03:00 AM	63.9
03:00 - 04:00 AM	80.2
04:00 - 05:00 AM	76.1
05:00 - 06:00 AM	61.9
06:00 - 07:00 AM	66.1
07:00 - 08:00 AM	62.4
08:00 - 09:00 AM	81.7
09:00 - 10:00 AM	74.7
10:00 - 11:00 AM	58.9
11:00 - 12:00 PM	61.9
12:00 - 01:00 PM	59.8
CNEL:	80.3

Notes:
Refer to field data sheet

Figure F1-4J Hourly Noise Level Measurement Data at Location N-20

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	**SCIG**		
Address:	**ISLAND YACHT MARINA**	**Date:**	**1/15/08-**
Location:	**BOAT SLIP FACING TI FRWY BRIDGE & R/R BRIDGE AT CERRITOS CHANNEL**		**1/16/08**
Noise Sources:	**TRAFFIC, TRAINS, MARINA NOISE, INDUSTRIAL NOISE**	**Position:**	**N-21**



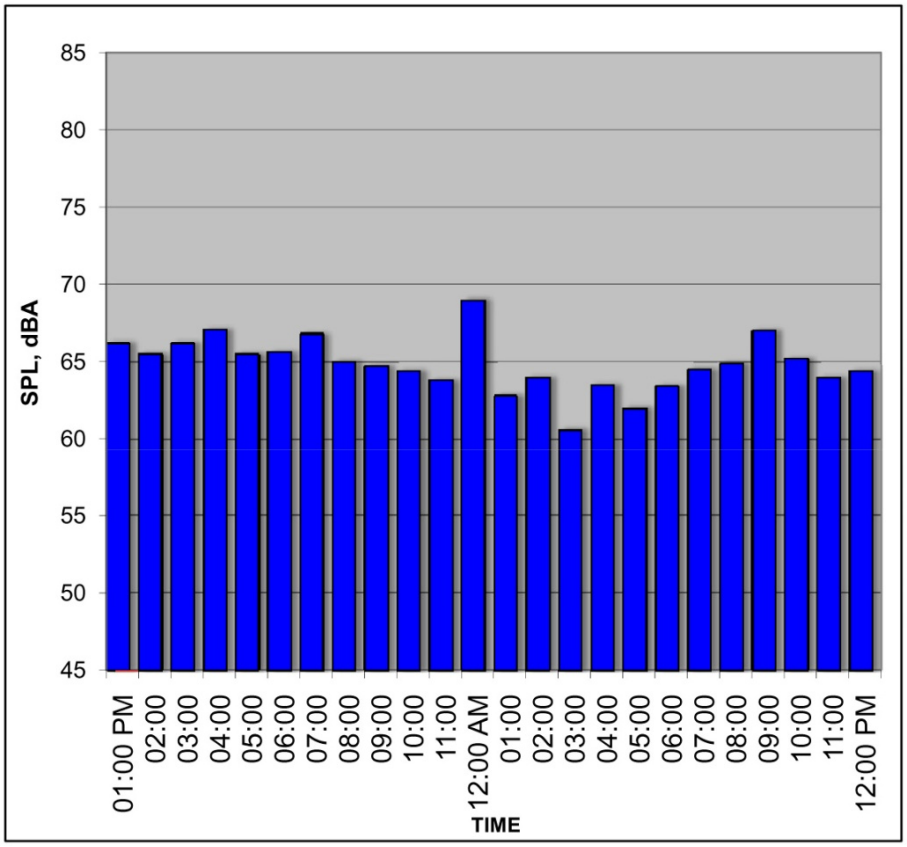
TIME	HNL, dB(A)
01:00 - 02:00 PM	72.5
02:00 - 03:00 PM	75.1
03:00 - 04:00 PM	73.5
04:00 - 05:00 PM	69.6
05:00 - 06:00 PM	75.6
06:00 - 07:00 PM	70.2
07:00 - 08:00 PM	73.9
08:00 - 09:00 PM	71.8
09:00 - 10:00 PM	71.4
10:00 - 11:00 PM	74.9
11:00 - 12:00 AM	71.1
12:00 - 01:00 AM	73.6
01:00 - 02:00 AM	73.7
02:00 - 03:00 AM	72.7
03:00 - 04:00 AM	65.6
04:00 - 05:00 AM	73.6
05:00 - 06:00 AM	73.2
06:00 - 07:00 AM	69.8
07:00 - 08:00 AM	73.1
08:00 - 09:00 AM	73.3
09:00 - 10:00 AM	71.4
10:00 - 11:00 AM	68.2
11:00 - 12:00 PM	68.9
12:00 - 01:00 PM	70.2
CNEL:	79.3

Notes:
Refer to field data sheet

Figure F1-4K Hourly Noise Level Measurement Data at Location N-21

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	**SCIG**		
Address:	**1710 MAURETANIA ST**	**Date:**	**4/26/11-**
Location:	**FRONT YARD OF PROPERTY FACING ALAMEDA ST AND CORRIDOR**		**4/27/11**
Noise		**Position:**	**N-29**
Sources:	**TRAFFIC, TRAINS, INDUSTRIAL NOISE**		



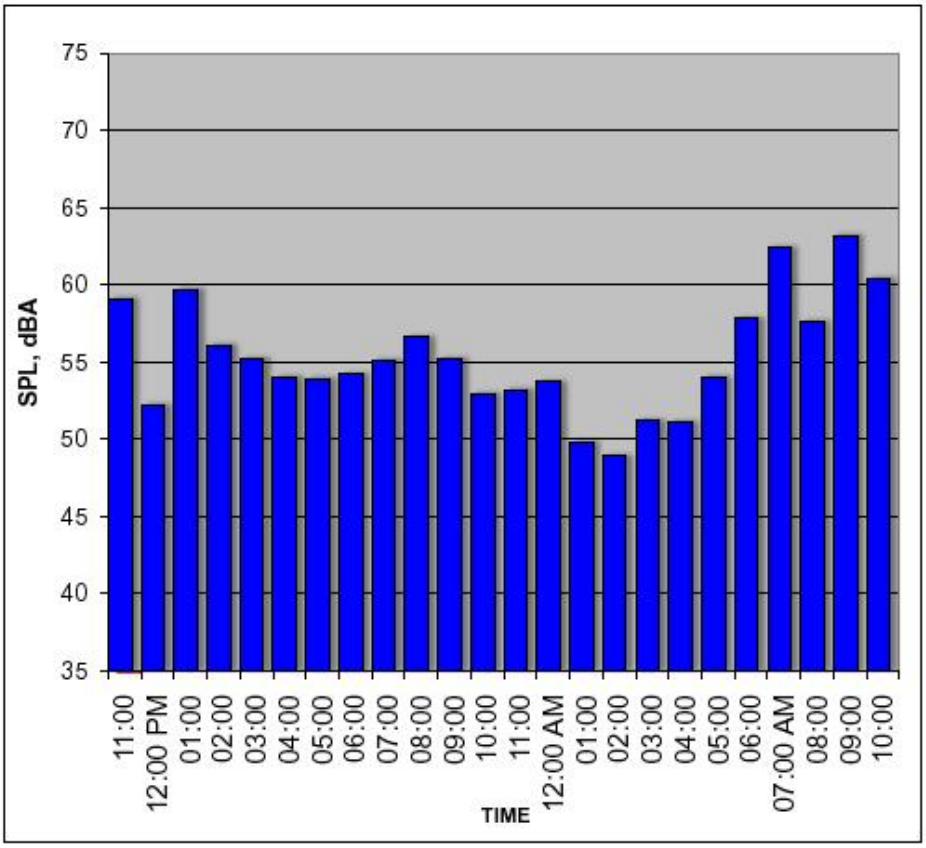
TIME	HNL, dB(A)
01:00 - 02:00 PM	66.2
02:00 - 03:00 PM	65.5
03:00 - 04:00 PM	66.2
04:00 - 05:00 PM	67.1
05:00 - 06:00 PM	65.5
06:00 - 07:00 PM	65.6
07:00 - 08:00 PM	66.8
08:00 - 09:00 PM	65.0
09:00 - 10:00 PM	64.7
10:00 - 11:00 PM	64.4
11:00 - 12:00 AM	63.8
12:00 - 01:00 AM	69.0
01:00 - 02:00 AM	62.8
02:00 - 03:00 AM	64.0
03:00 - 04:00 AM	60.6
04:00 - 05:00 AM	63.5
05:00 - 06:00 AM	62.0
06:00 - 07:00 AM	63.4
07:00 - 08:00 AM	64.5
08:00 - 09:00 AM	64.9
09:00 - 10:00 AM	67.0
10:00 - 11:00 AM	65.2
11:00 - 12:00 PM	64.0
12:00 - 01:00 PM	64.4
CNEL:	71.3

Notes:
Refer to field data sheet

Figure F1-4L Hourly Noise Level Measurement Data at Location N-29

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	STEPHENS MIDDLE SCHOOL	Date:	3/19/12-3/20/12
Location:	PLAYGROUND AT CLASSROOM PC2		
Noise Sources:	STUDENTS AT PLAYGROUND, LOCAL TRAFFIC TRAINS, ICTF	Position:	N-30



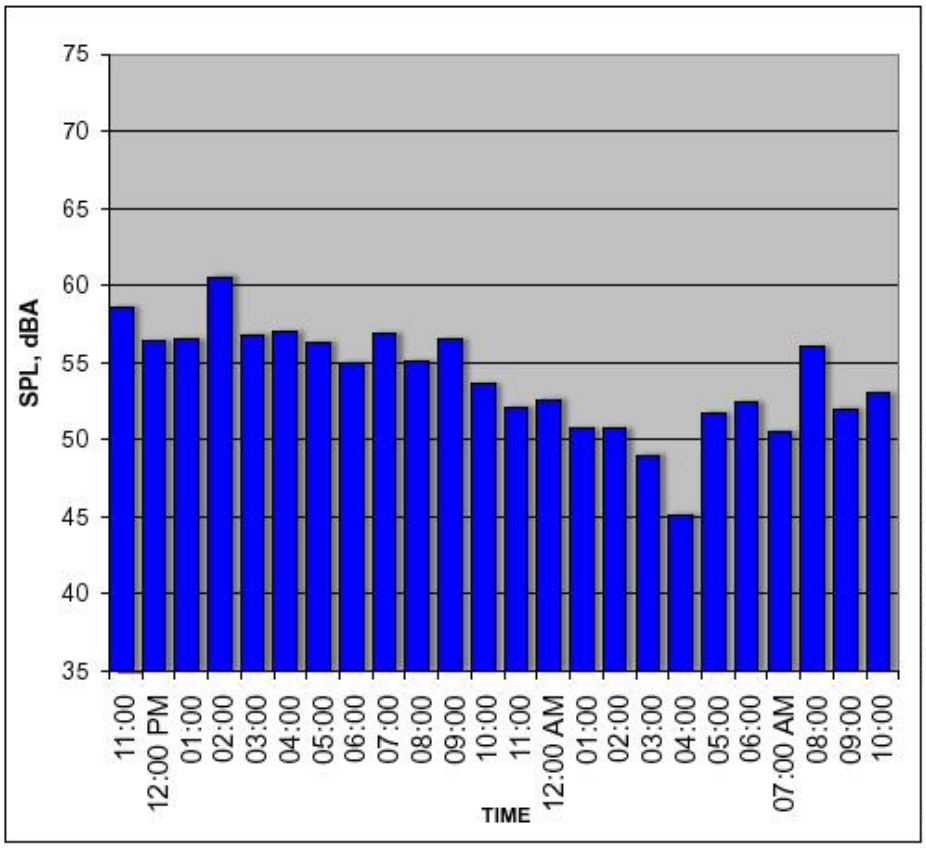
TIME	HNL, dB(A)
11:00 - 12:00 PM	59.1
12:00 - 01:00 PM	52.2
01:00 - 02:00 PM	59.7
02:00 - 03:00 PM	56.1
03:00 - 04:00 PM	55.2
04:00 - 05:00 PM	54.0
05:00 - 06:00 PM	53.9
06:00 - 07:00 PM	54.2
07:00 - 08:00 PM	55.1
08:00 - 09:00 PM	56.6
09:00 - 10:00 PM	55.2
10:00 - 11:00 PM	52.9
11:00 - 12:00 AM	53.2
12:00 - 01:00 AM	53.7
01:00 - 02:00 AM	49.8
02:00 - 03:00 AM	48.9
03:00 - 04:00 AM	51.2
04:00 - 05:00 AM	51.1
05:00 - 06:00 AM	54.0
06:00 - 07:00 AM	57.8
07:00 - 08:00 AM	62.4
08:00 - 09:00 AM	57.6
09:00 - 10:00 AM	63.2
10:00 - 11:00 AM	60.4
CNEL:	61.2

Notes:
Refer to field data sheet

Figure F1-4M Hourly Noise Level Measurement Data at Location N-30

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	WEBSTER SCHOOL	Date:	3/13/12-3/14/12
Location:	PLAYGROUND AT CLASSROOM B-1		
Noise Sources:	STUDENTS AT PLAYGROUND, LOCAL TRAFFIC, TRAINS	Position:	N-31



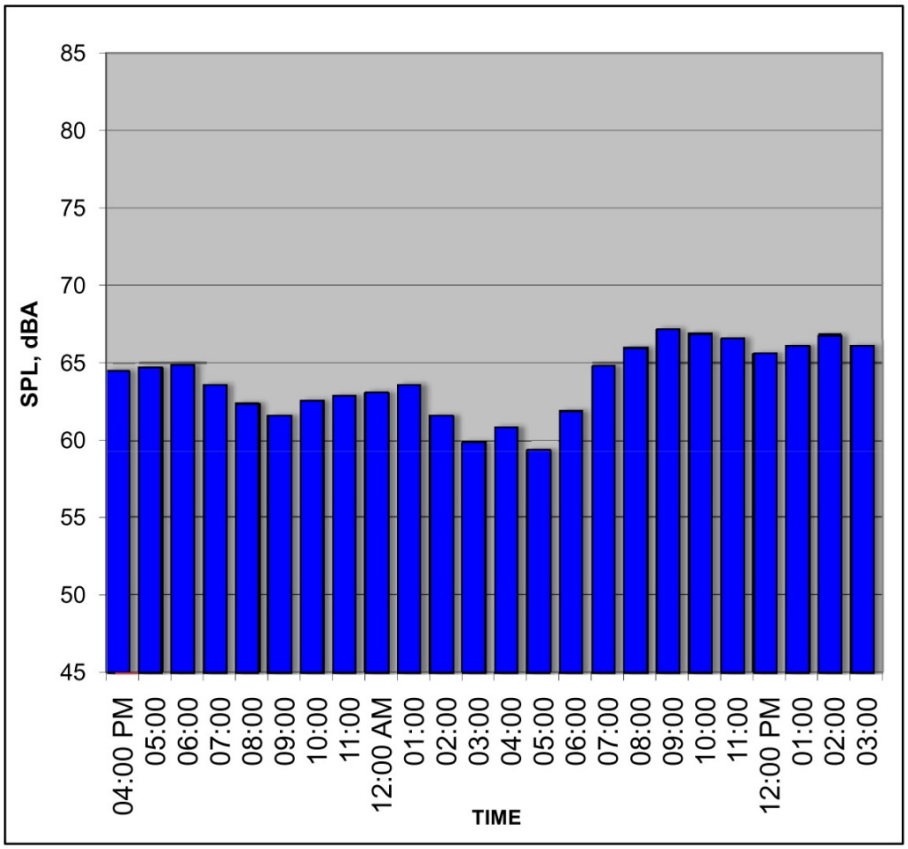
TIME	HNL, dB(A)
11:00 - 12:00 PM	58.6
12:00 - 01:00 PM	56.4
01:00 - 02:00 PM	56.5
02:00 - 03:00 PM	60.5
03:00 - 04:00 PM	56.8
04:00 - 05:00 PM	57.0
05:00 - 06:00 PM	56.3
06:00 - 07:00 PM	55.0
07:00 - 08:00 PM	56.9
08:00 - 09:00 PM	55.1
09:00 - 10:00 PM	56.5
10:00 - 11:00 PM	53.6
11:00 - 12:00 AM	52.1
12:00 - 01:00 AM	52.6
01:00 - 02:00 AM	50.7
02:00 - 03:00 AM	50.7
03:00 - 04:00 AM	49.0
04:00 - 05:00 AM	45.1
05:00 - 06:00 AM	51.7
06:00 - 07:00 AM	52.4
07:00 - 08:00 AM	50.5
08:00 - 09:00 AM	56.0
09:00 - 10:00 AM	52.0
10:00 - 11:00 AM	53.0
CNEL:	59.6

Notes:
Refer to field data sheet

Figure F1-4N Hourly Noise Level Measurement Data at Location N-31

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	**SCIG**		
Address:	**1619 CRUCES ST**	**Date:**	**4/28/11-4/29/11**
Location:	**FRONT YARD FACING INDUSTRIAL YARD**		
Noise Sources:	**TRAFFIC, TRAINS, INDUSTRIAL NOISE**	**Position:**	**N-32**



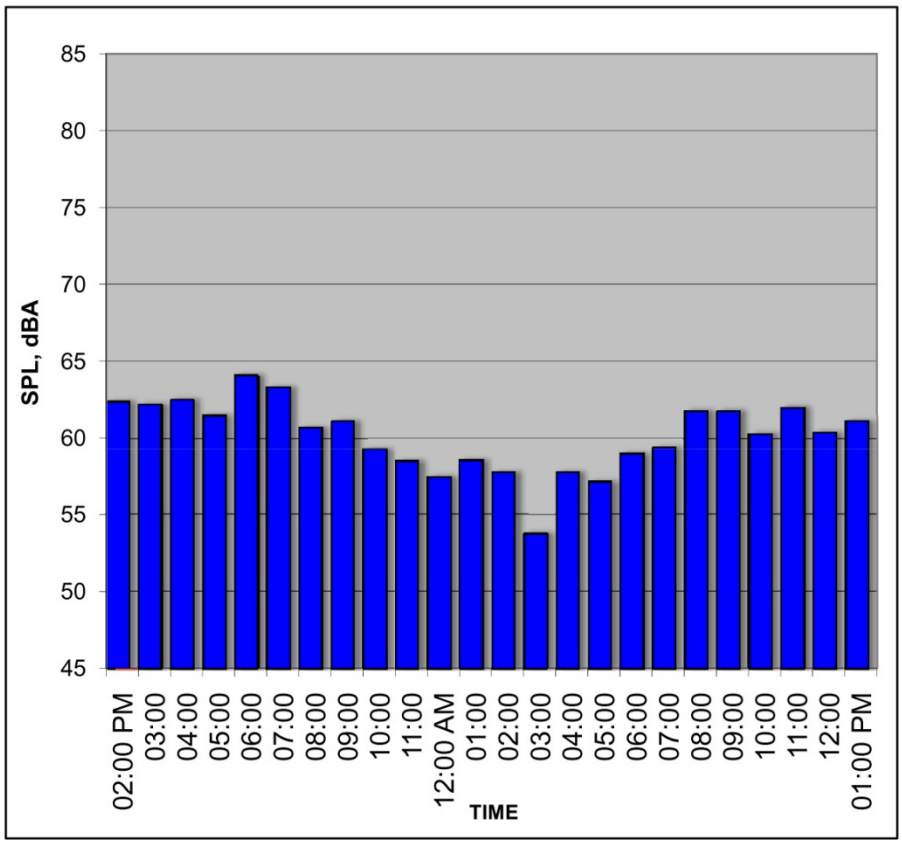
TIME	HNL, dB(A)
04:00 - 05:00 PM	64.5
05:00 - 06:00 PM	64.7
06:00 - 07:00 PM	64.9
07:00 - 08:00 PM	63.6
08:00 - 09:00 PM	62.4
09:00 - 10:00 PM	61.6
10:00 - 11:00 PM	62.6
11:00 - 12:00 AM	62.9
12:00 - 01:00 AM	63.1
01:00 - 02:00 AM	63.6
02:00 - 03:00 AM	61.6
03:00 - 04:00 AM	59.9
04:00 - 05:00 AM	60.9
05:00 - 06:00 AM	59.4
06:00 - 07:00 AM	61.9
07:00 - 08:00 AM	64.8
08:00 - 09:00 AM	66.0
09:00 - 10:00 AM	67.2
10:00 - 11:00 AM	66.9
11:00 - 12:00 PM	66.6
12:00 - 01:00 PM	65.6
01:00 - 02:00 PM	66.1
02:00 - 03:00 PM	66.8
03:00 - 04:00 PM	66.1
CNEL:	69.3

Notes:
Refer to field data sheet

Figure F1-4O Hourly Noise Level Measurement Data at Location N-32

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	**SCIG**		
Address:	**21843 SALMON AVE**	**Date:**	**4/27/11-**
Location:	**REAR YARD OF PROPERTY FACING ALAMEDA ST AND CORRIDOR**		**4/28/11**
Noise Sources:	**TRAFFIC, TRAINS, INDUSTRIAL NOISE**	**Position:**	**N-33**



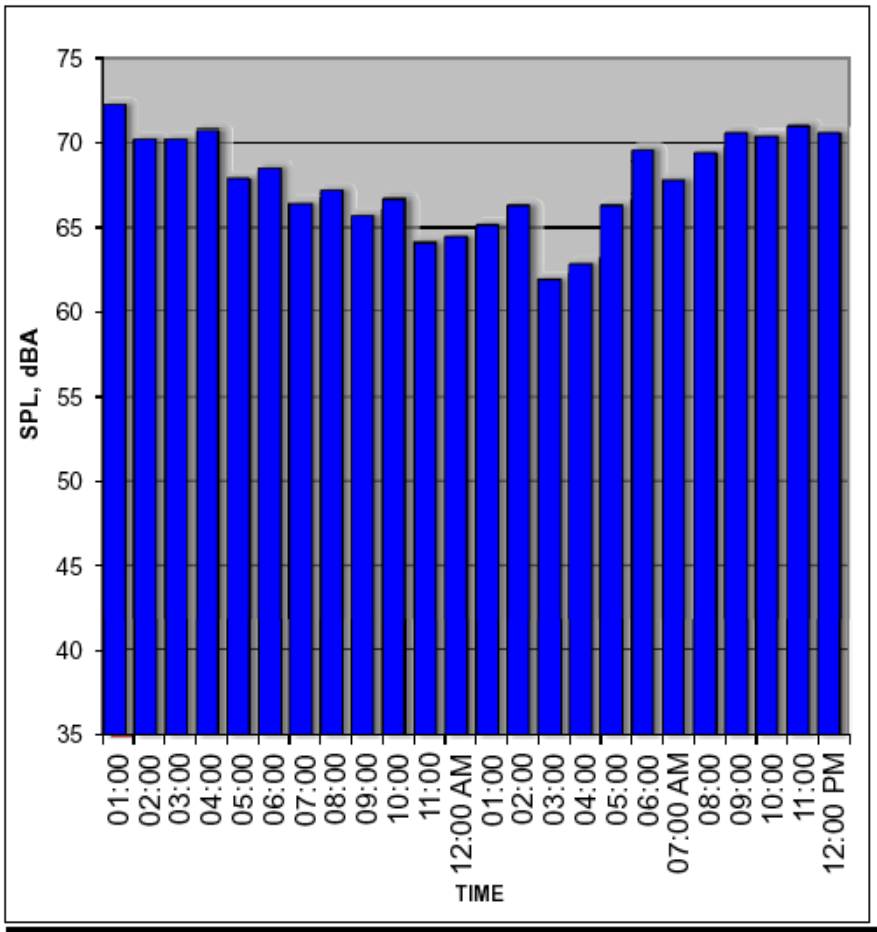
TIME	HNL, dB(A)
02:00 - 03:00 PM	62.4
03:00 - 04:00 PM	62.2
04:00 - 05:00 PM	62.5
05:00 - 06:00 PM	61.5
06:00 - 07:00 PM	64.1
07:00 - 08:00 PM	63.3
08:00 - 09:00 PM	60.7
09:00 - 10:00 PM	61.1
10:00 - 11:00 PM	59.3
11:00 - 12:00 AM	58.5
12:00 - 01:00 AM	57.5
01:00 - 02:00 AM	58.6
02:00 - 03:00 AM	57.8
03:00 - 04:00 AM	53.8
04:00 - 05:00 AM	57.8
05:00 - 06:00 AM	57.2
06:00 - 07:00 AM	59.0
07:00 - 08:00 AM	59.4
08:00 - 09:00 AM	61.8
09:00 - 10:00 AM	61.8
10:00 - 11:00 AM	60.3
11:00 - 12:00 PM	62.0
12:00 - 01:00 PM	60.4
01:00 - 02:00 PM	61.1
CNEL:	65.7

Notes:
Refer to field data sheet

Figure F1-4P Hourly Noise Level Measurement Data at Location N-33

MEASUREMENT DATA - HOURLY NOISE LEVELS

Project:	SCIG		
Address:	MAMBO SOUND & RECORDS	Date:	7/16/12-7/17/12
Location:			
Noise Sources:	TRAILER TRAFFIC, AIRPLANES, HORNS	Position:	N-34



TIME	HNL, dB(A)
01:00 - 02:00 PM	72.2
02:00 - 03:00 PM	70.2
03:00 - 04:00 PM	70.2
04:00 - 05:00 PM	70.8
05:00 - 06:00 PM	67.9
06:00 - 07:00 PM	68.5
07:00 - 08:00 PM	66.4
08:00 - 09:00 PM	67.2
09:00 - 10:00 PM	65.7
10:00 - 11:00 PM	66.7
11:00 - 12:00 AM	64.1
12:00 - 01:00 AM	64.4
01:00 - 02:00 AM	65.1
02:00 - 03:00 AM	66.3
03:00 - 04:00 AM	61.9
04:00 - 05:00 AM	62.8
05:00 - 06:00 AM	66.3
06:00 - 07:00 AM	69.6
07:00 - 08:00 AM	67.8
08:00 - 09:00 AM	69.4
09:00 - 10:00 AM	70.6
10:00 - 11:00 AM	70.4
11:00 - 12:00 PM	71.0
12:00 - 01:00 PM	70.6
CNEL:	75.6

Notes:
Refer to field data sheet

Figure F1-4Q Hourly Noise Level Measurement Data at Location N-34

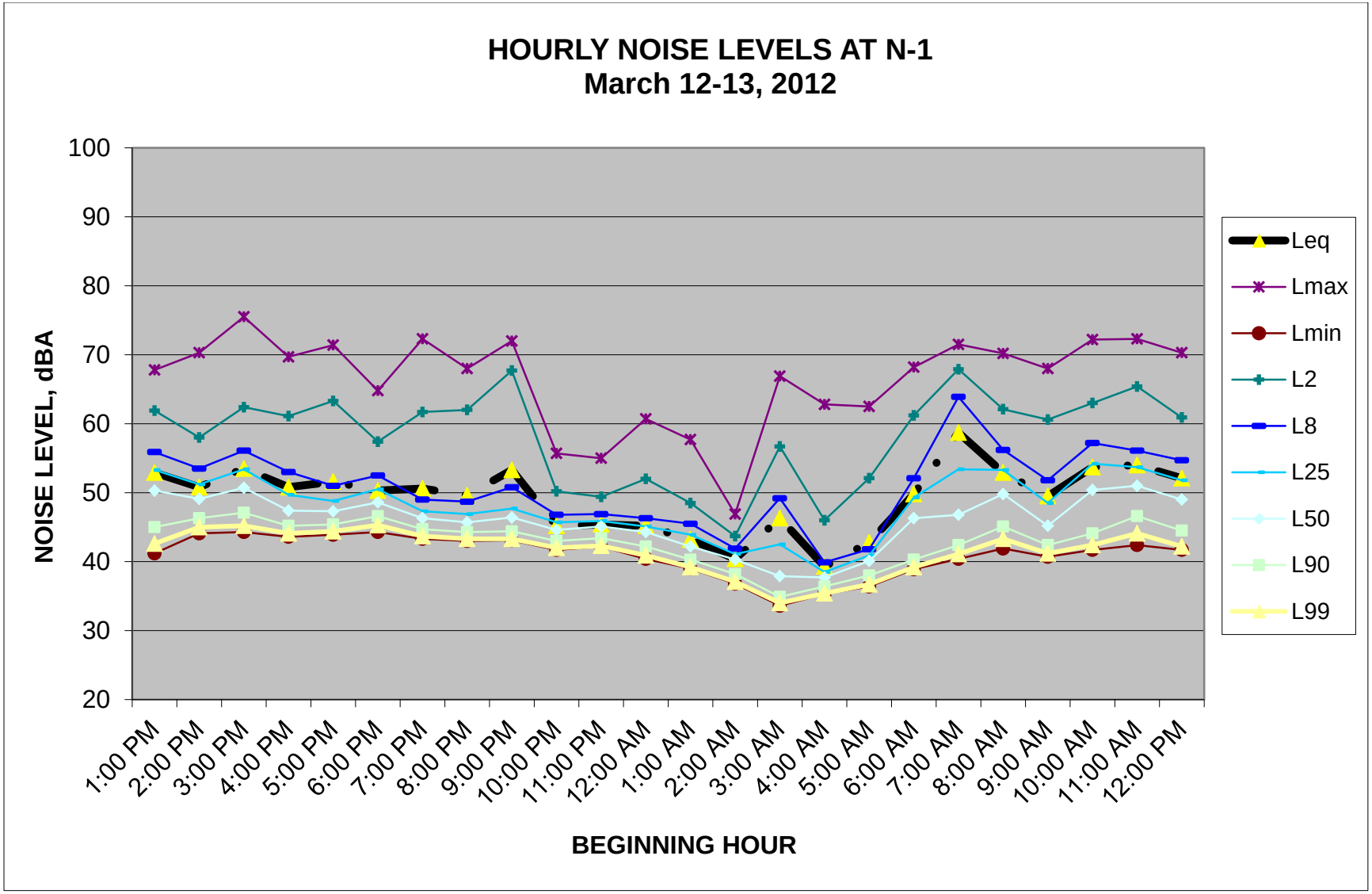


Figure F1-5A Hourly Noise Level and Statistical Data at Location N-1

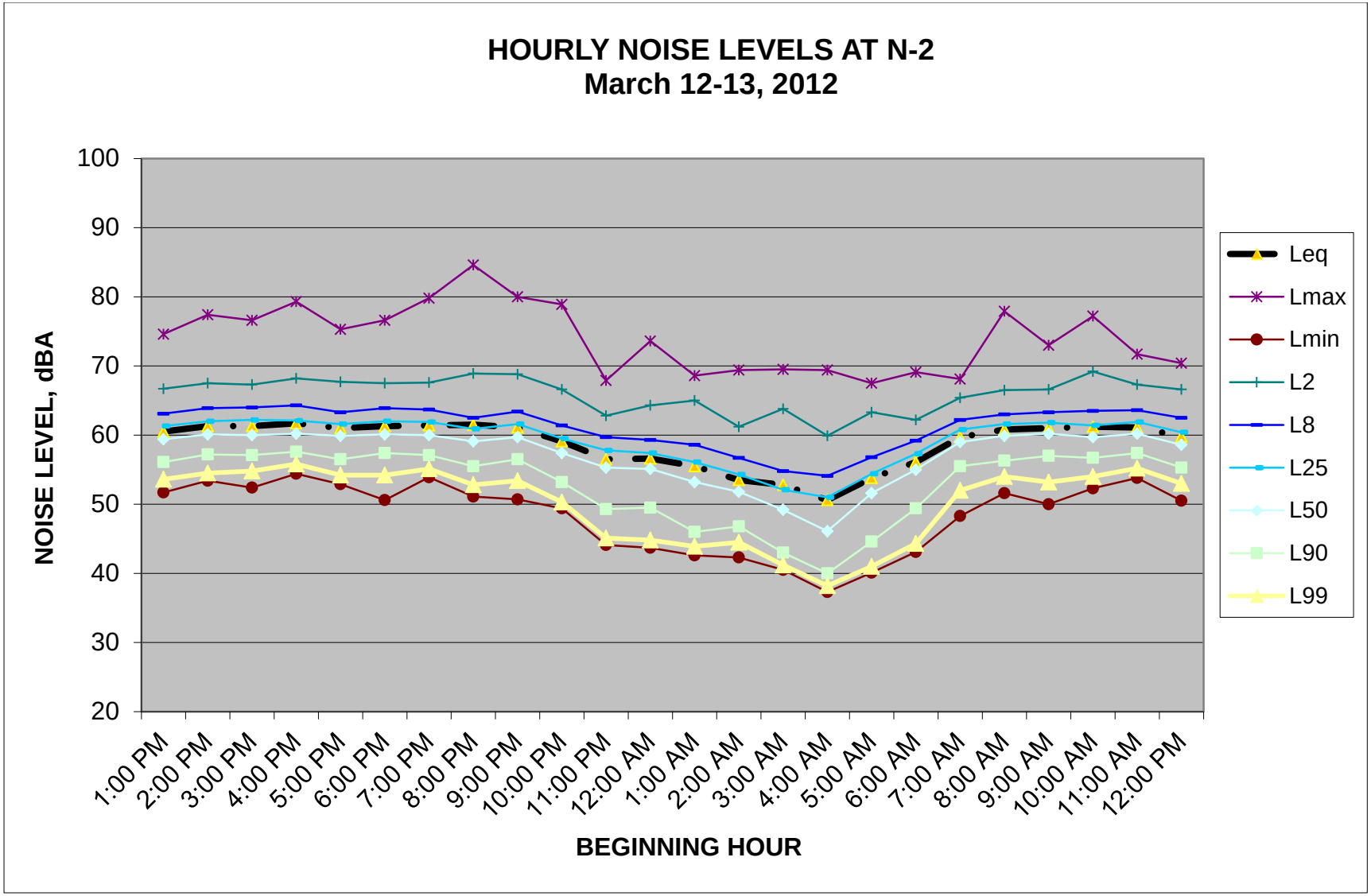


Figure F1-5B Hourly Noise Level and Statistical Data at Location N-2

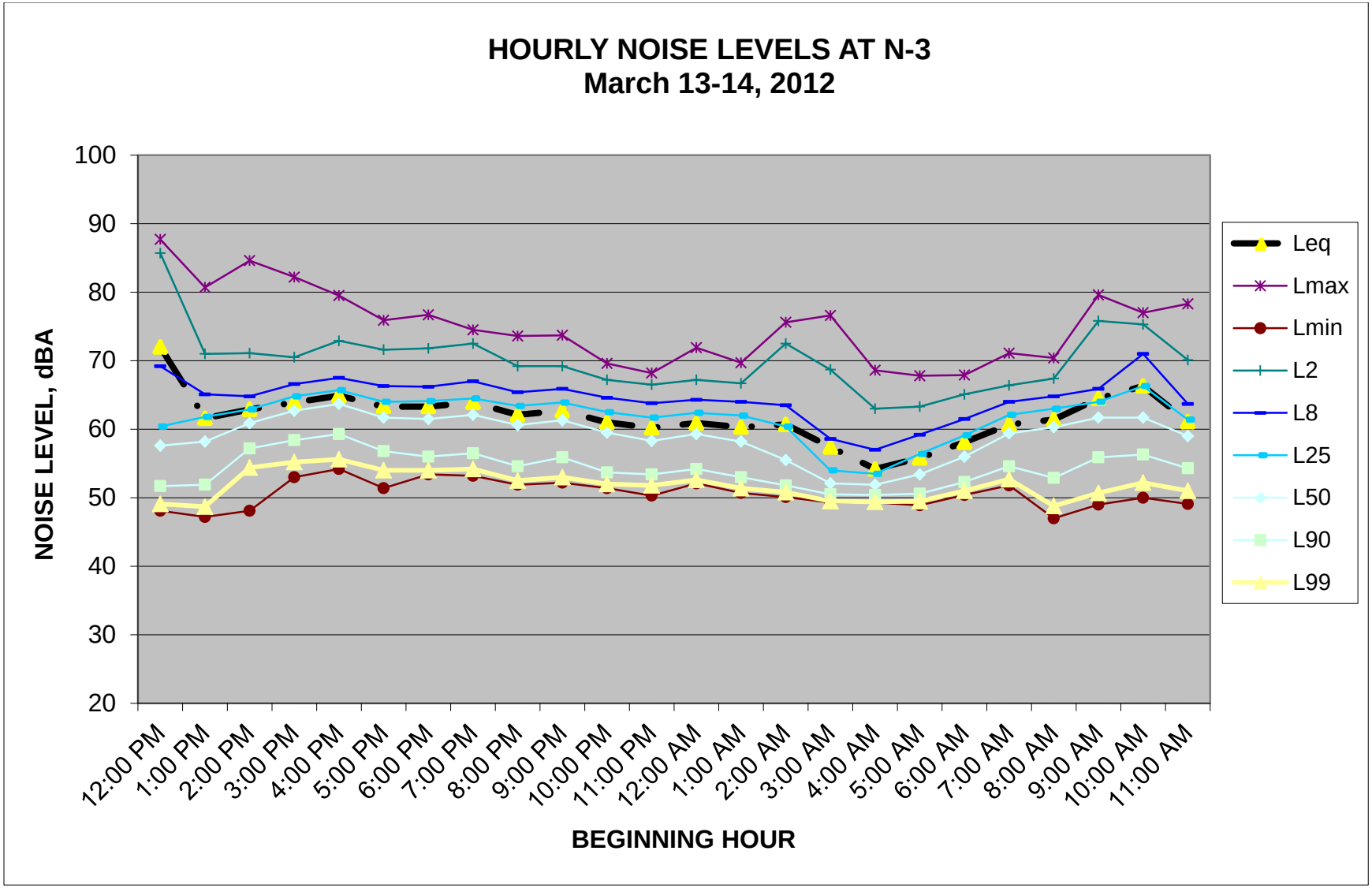


Figure F1-5C Hourly Noise Level and Statistical Data at Location N-3

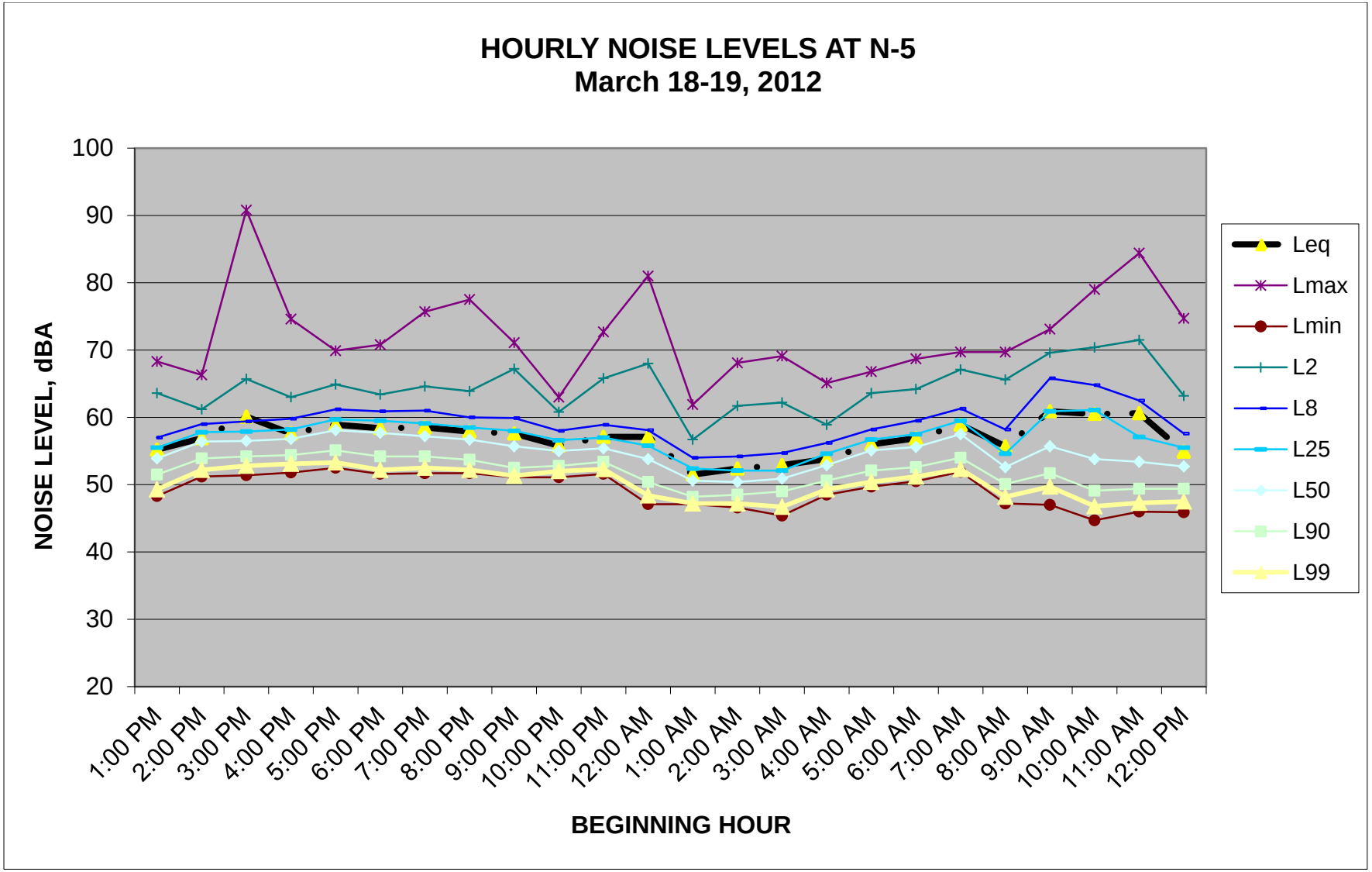


Figure F1-5D Hourly Noise Level and Statistical Data at Location N-5

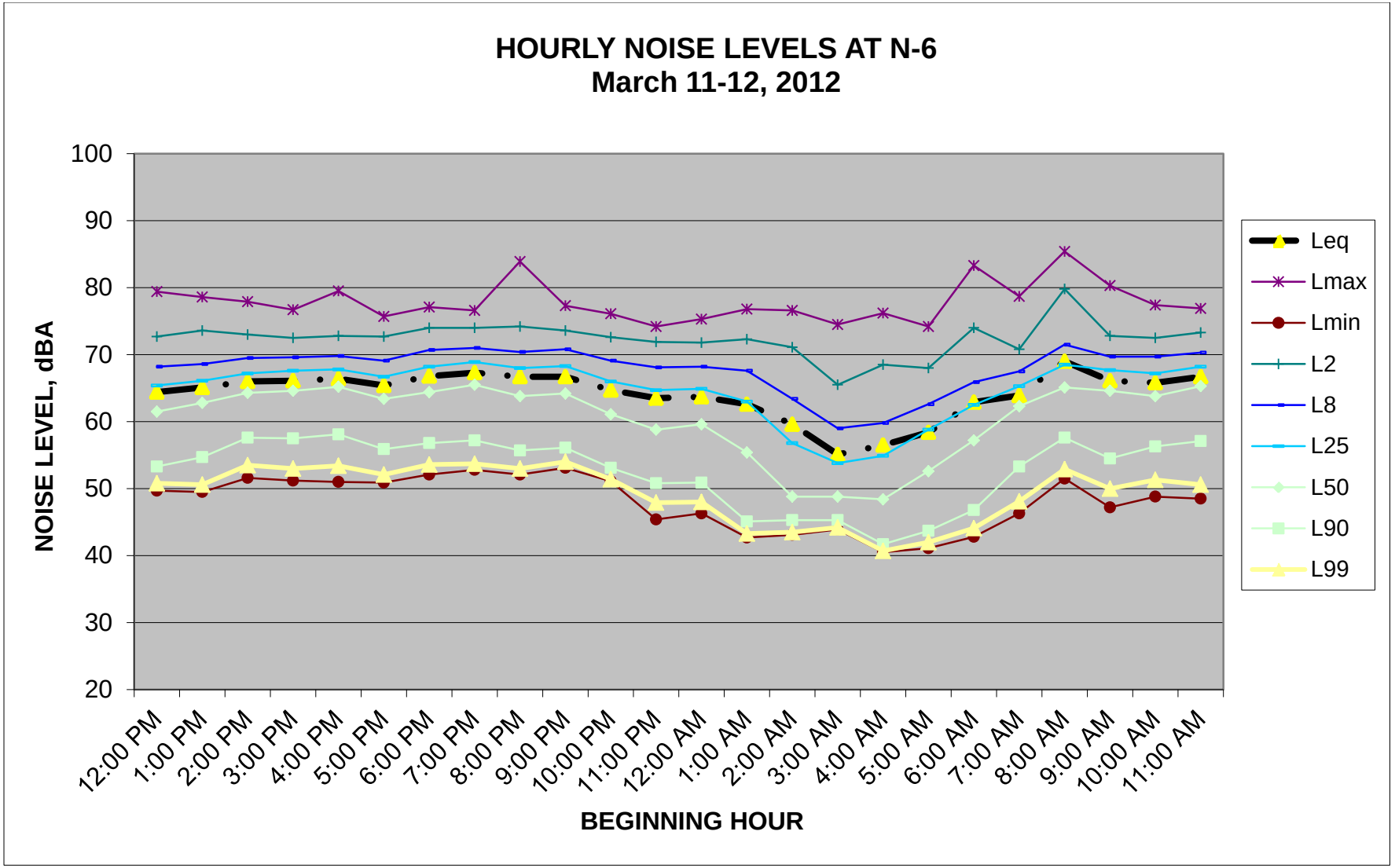


Figure F1-5E Hourly Noise Level and Statistical Data at Location N-6

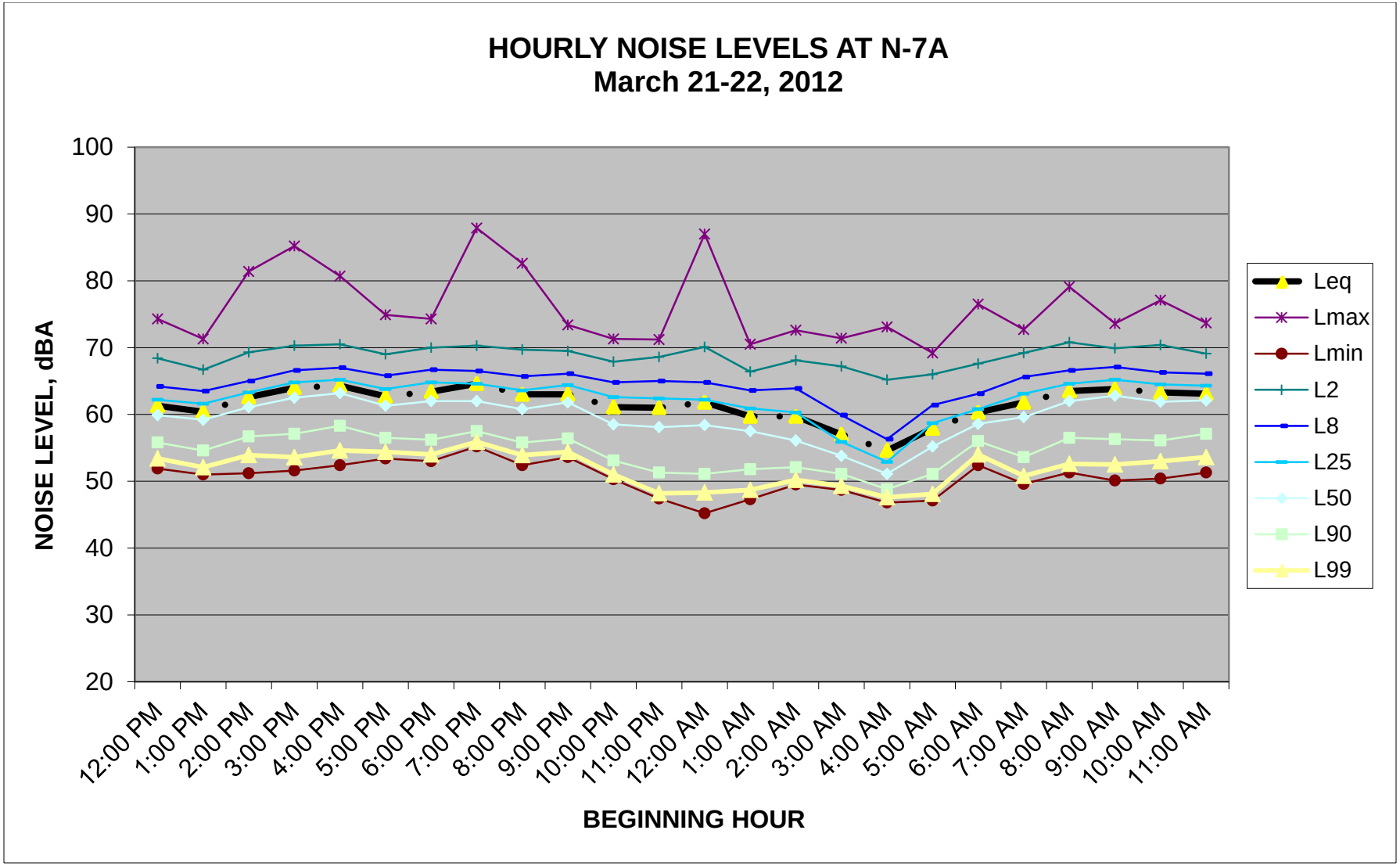


Figure F1-5F Hourly Noise Level and Statistical Data at Location N-7A

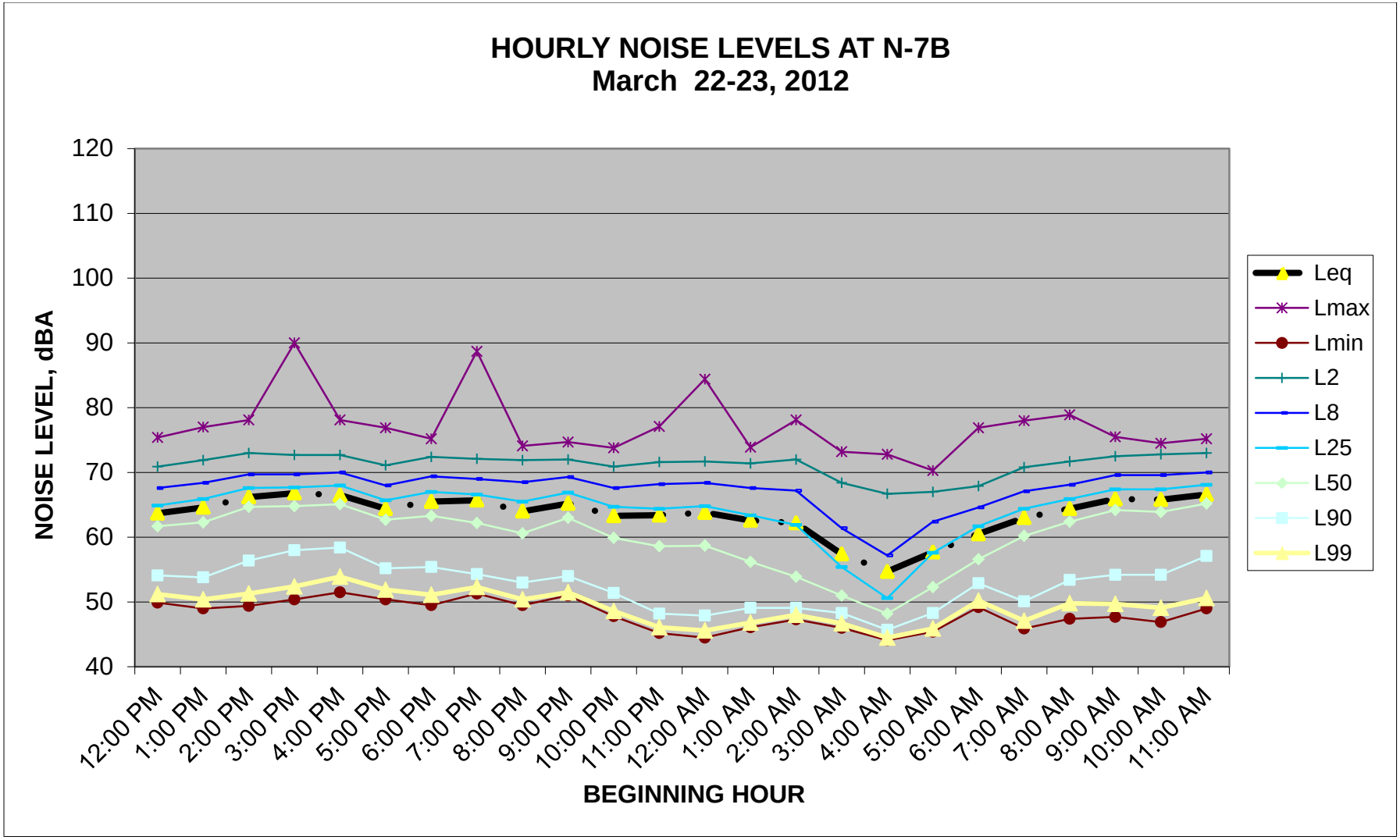


Figure F1-5G Hourly Noise Level and Statistical Data at Location N-7B

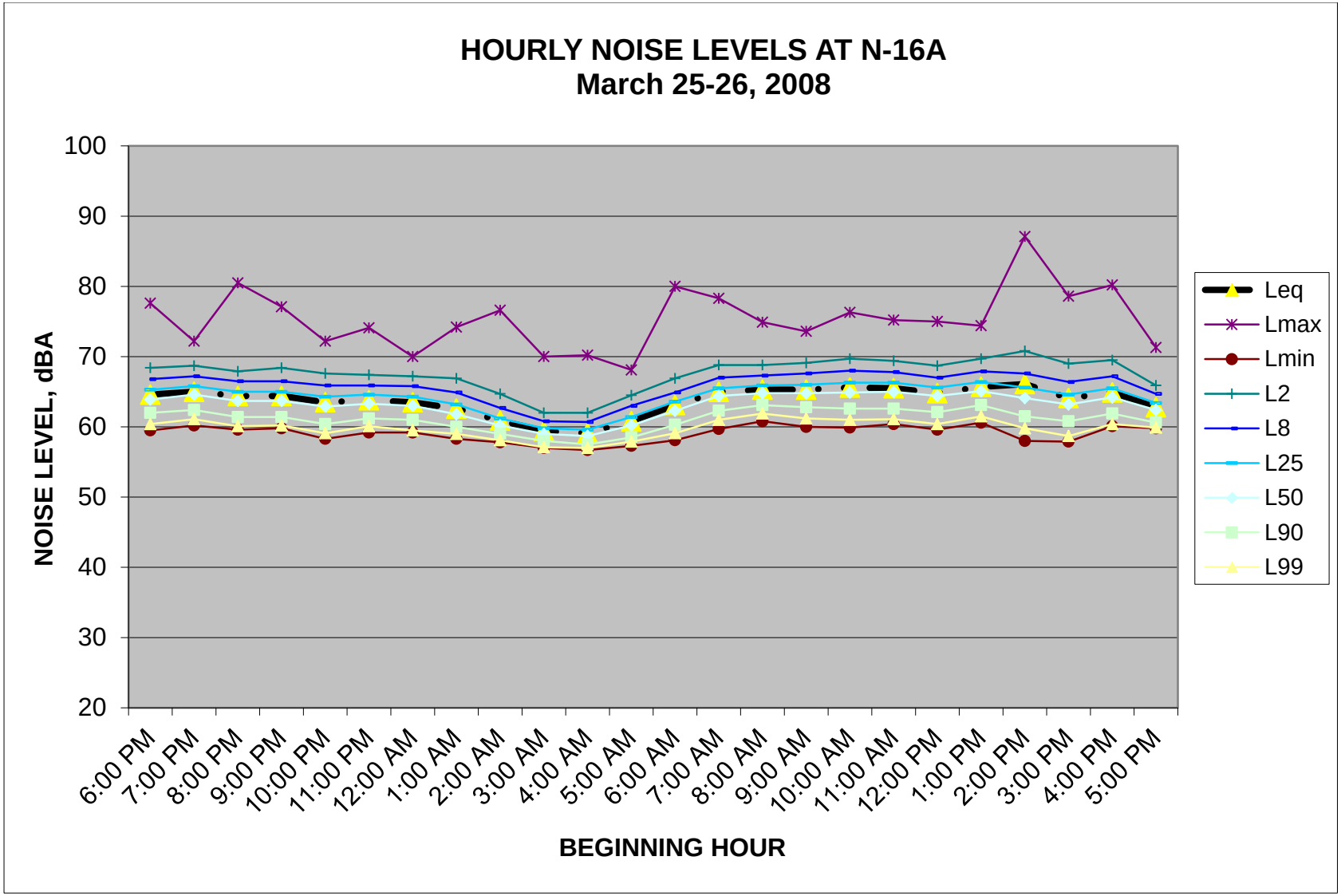


Figure F1-5H Hourly Noise Level and Statistical Data at Location N-16A

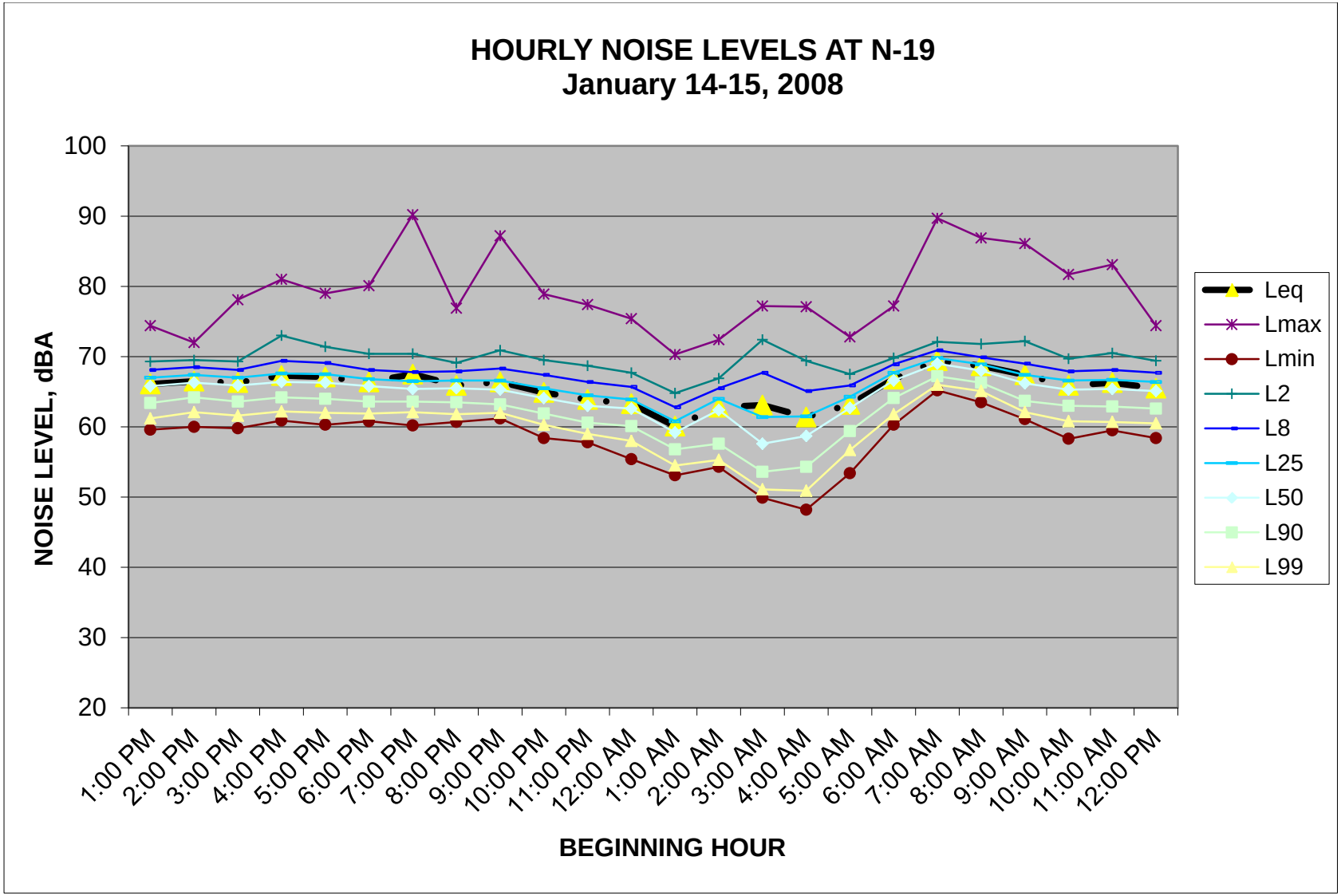


Figure F1-5l Hourly Noise Level and Statistical Data at Location N-19

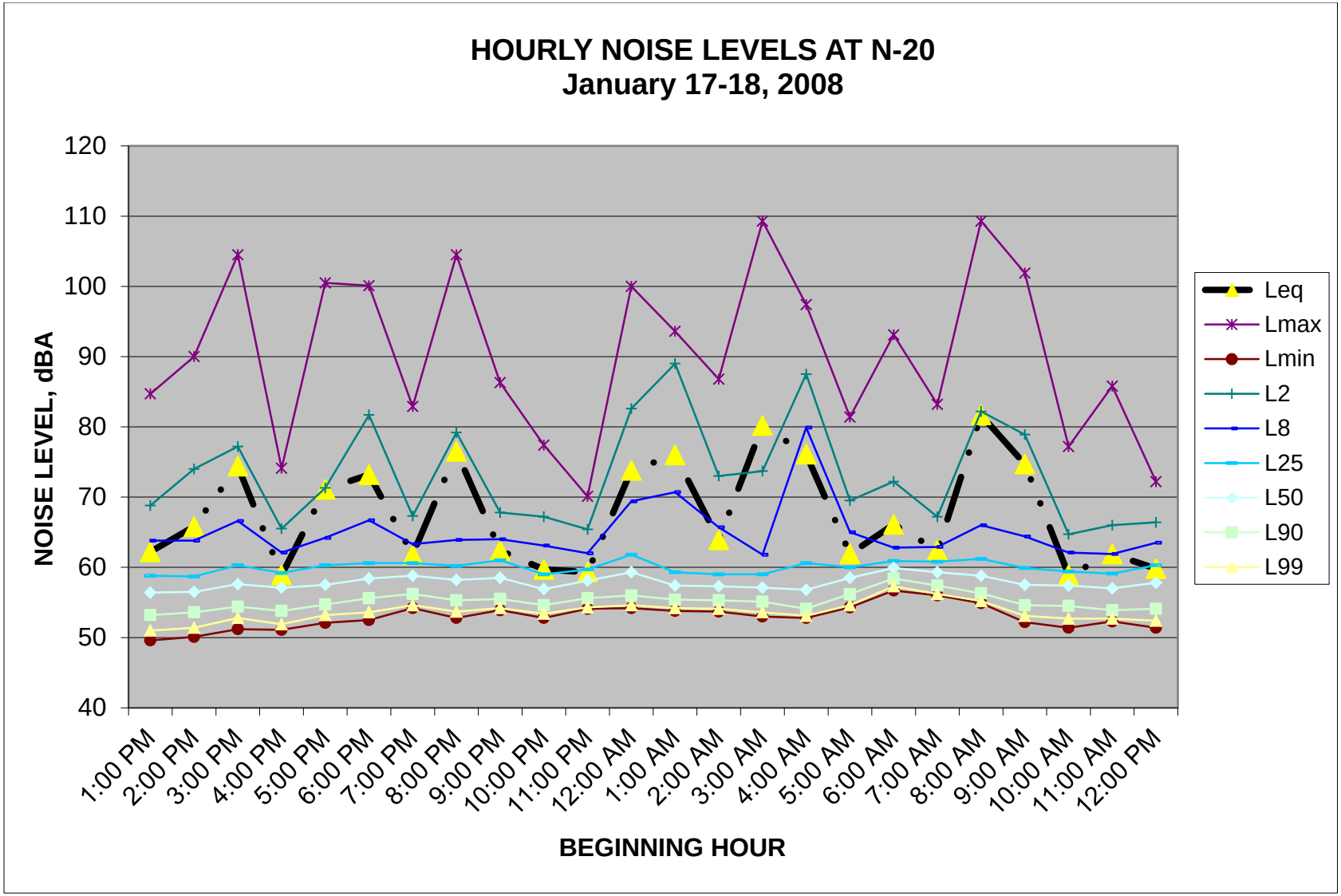


Figure F1-5J Hourly Noise Level and Statistical Data at Location N-20

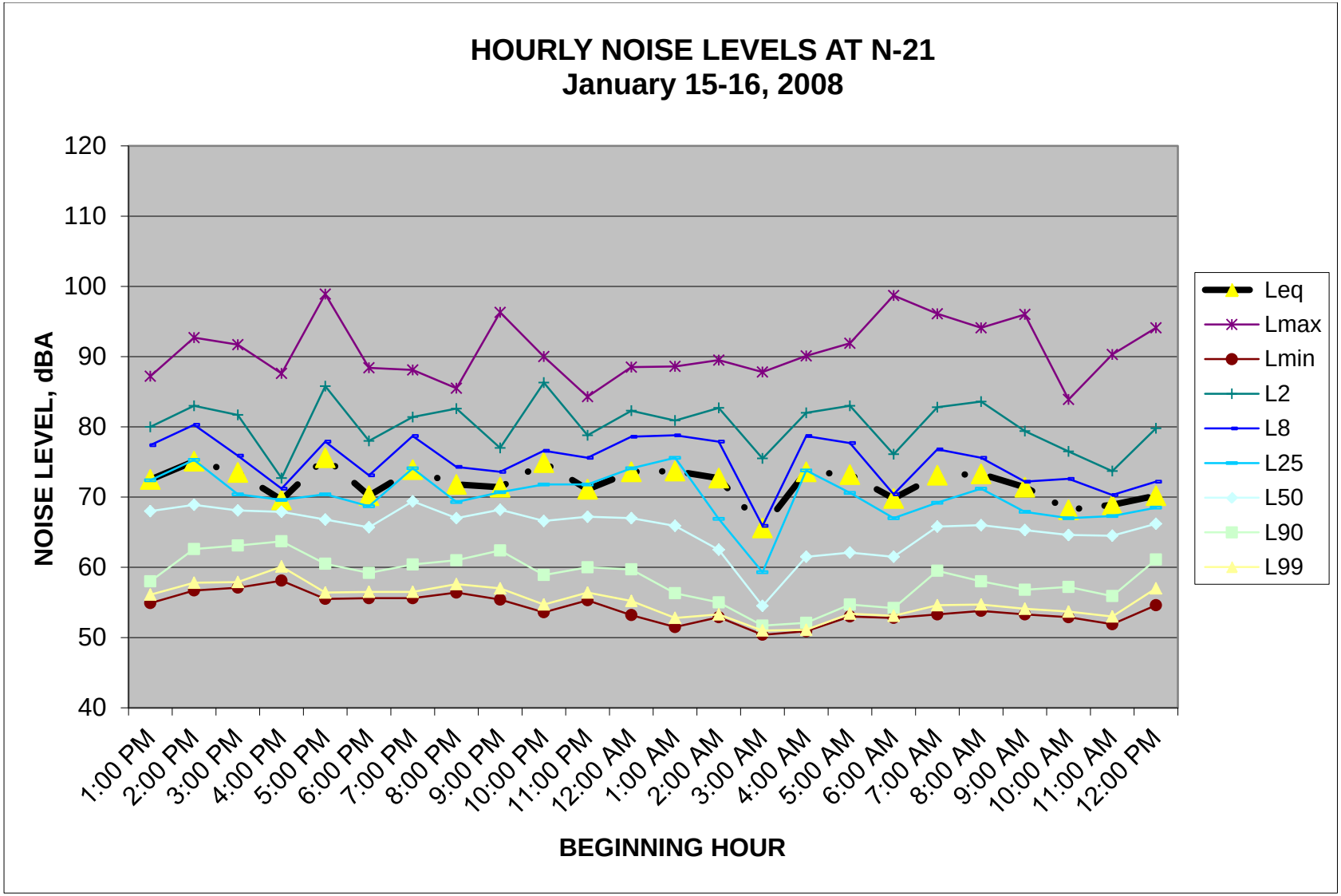


Figure F1-5K Hourly Noise Level and Statistical Data at Location N-21

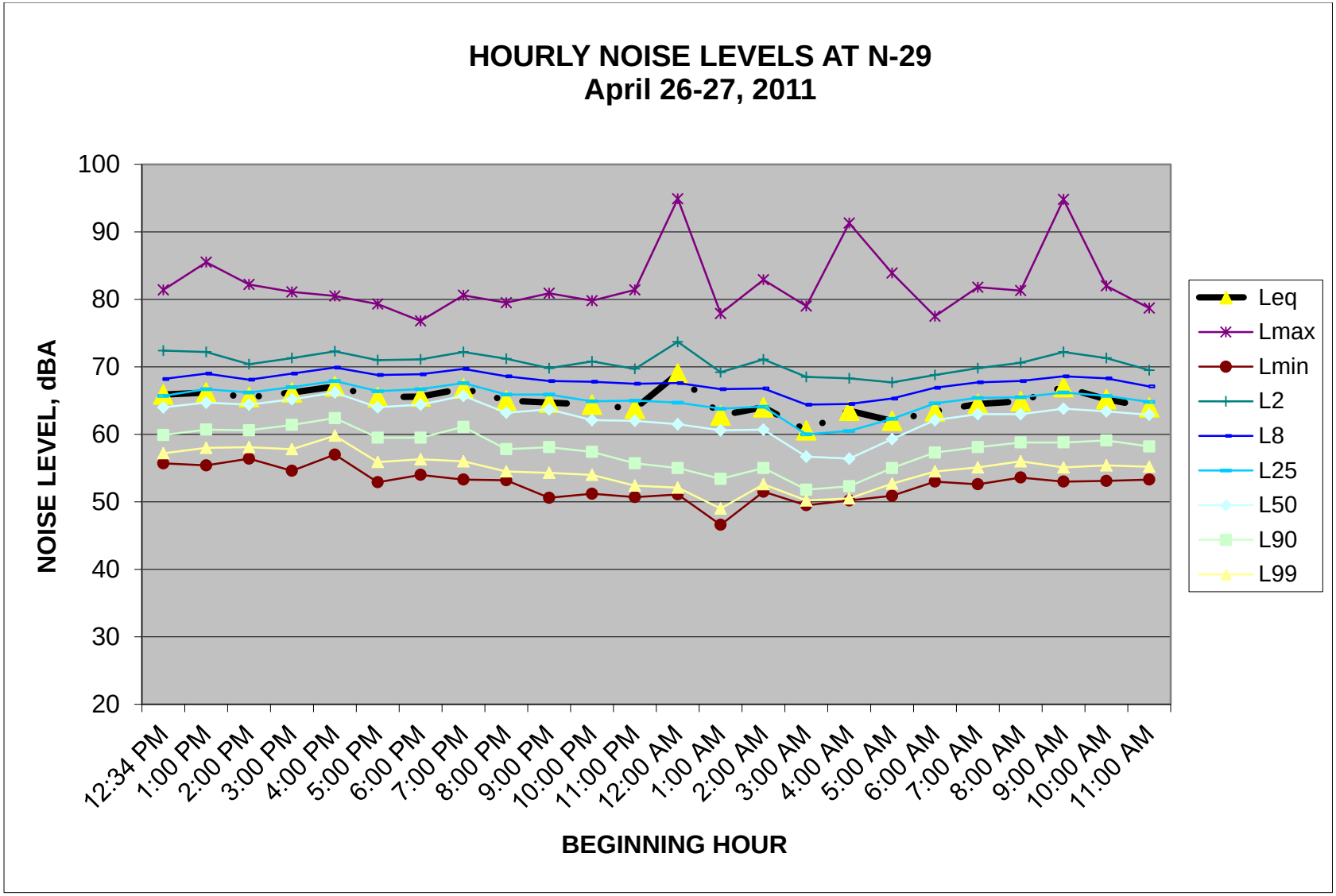


Figure F1-5L Hourly Noise Level and Statistical Data at Location N-29

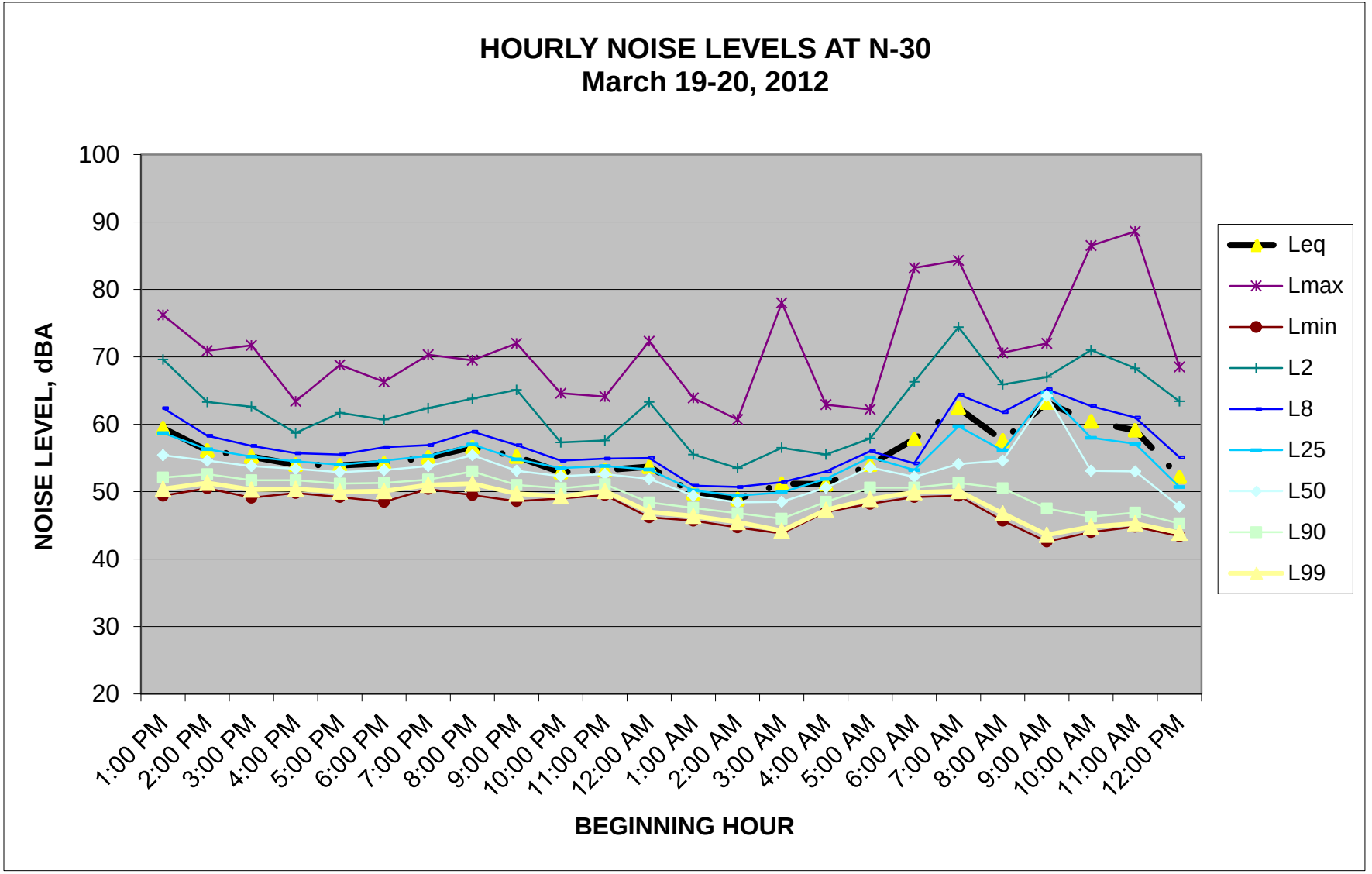


Figure F1-5M Hourly Noise Level and Statistical Data at Location N-30

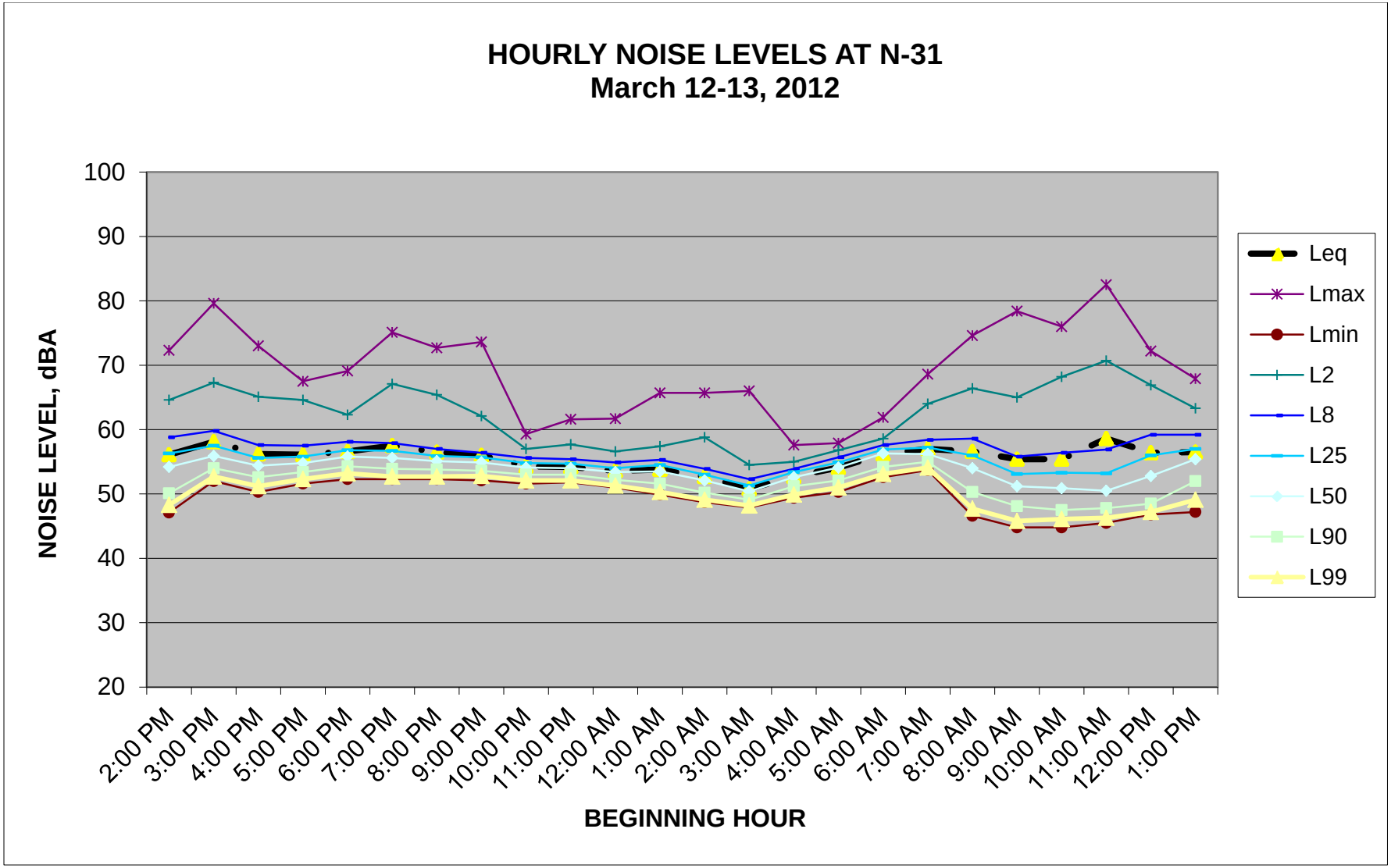


Figure F1-5N Hourly Noise Level and Statistical Data at Location N-31

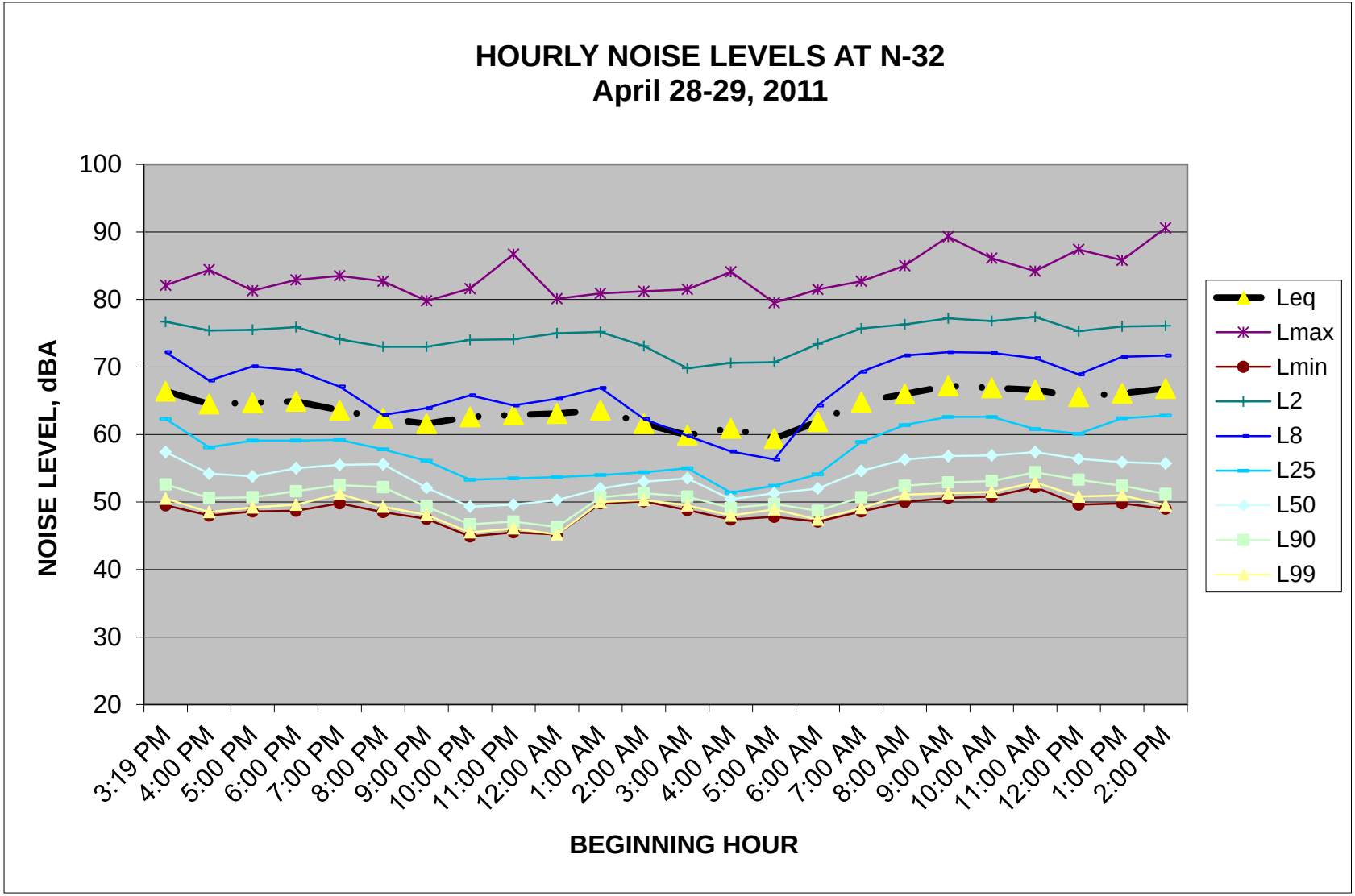


Figure F1-5O Hourly Noise Level and Statistical Data at Location N-32.

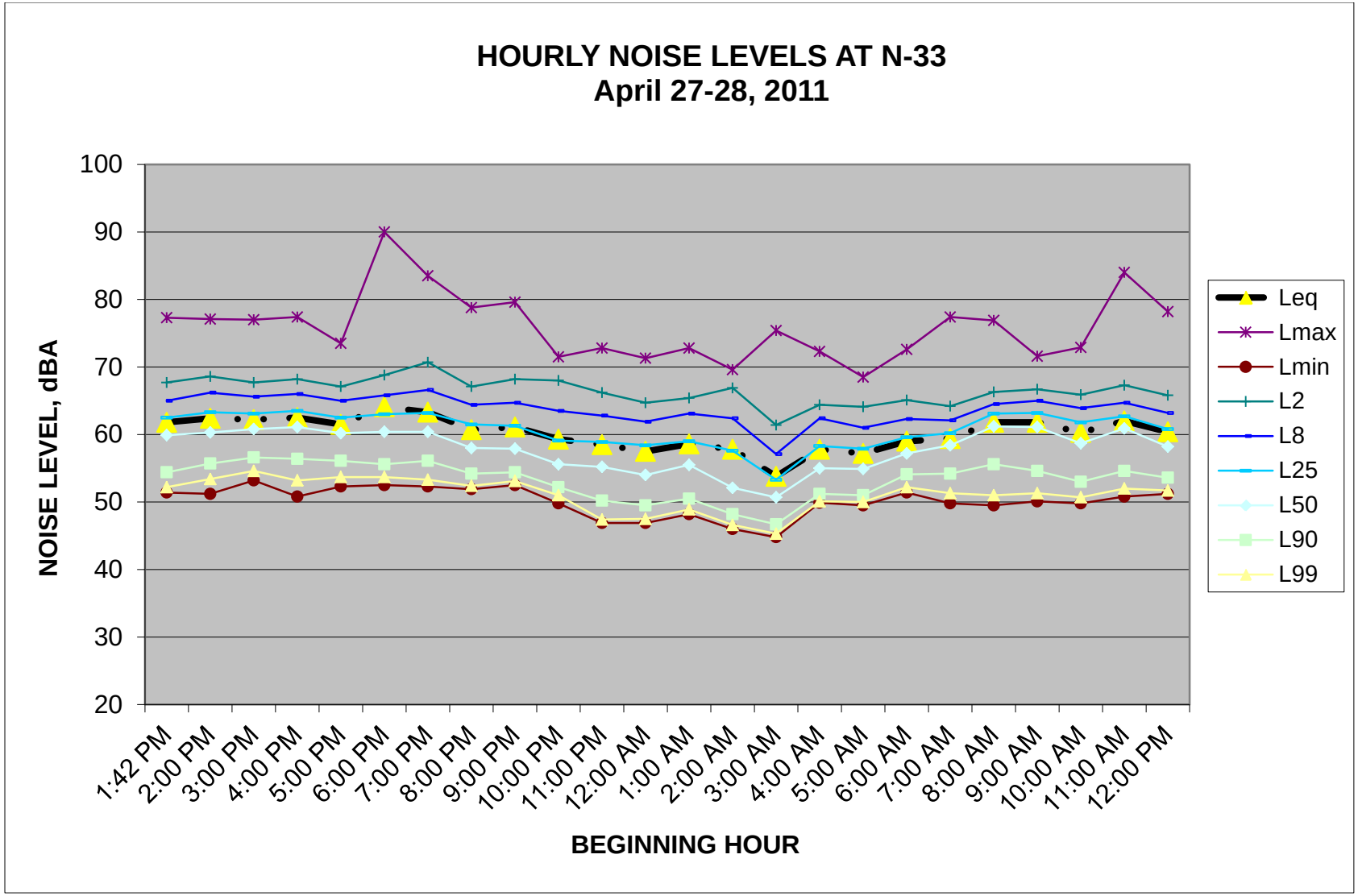


Figure F1-5P Hourly Noise Level and Statistical Data at Location N-33

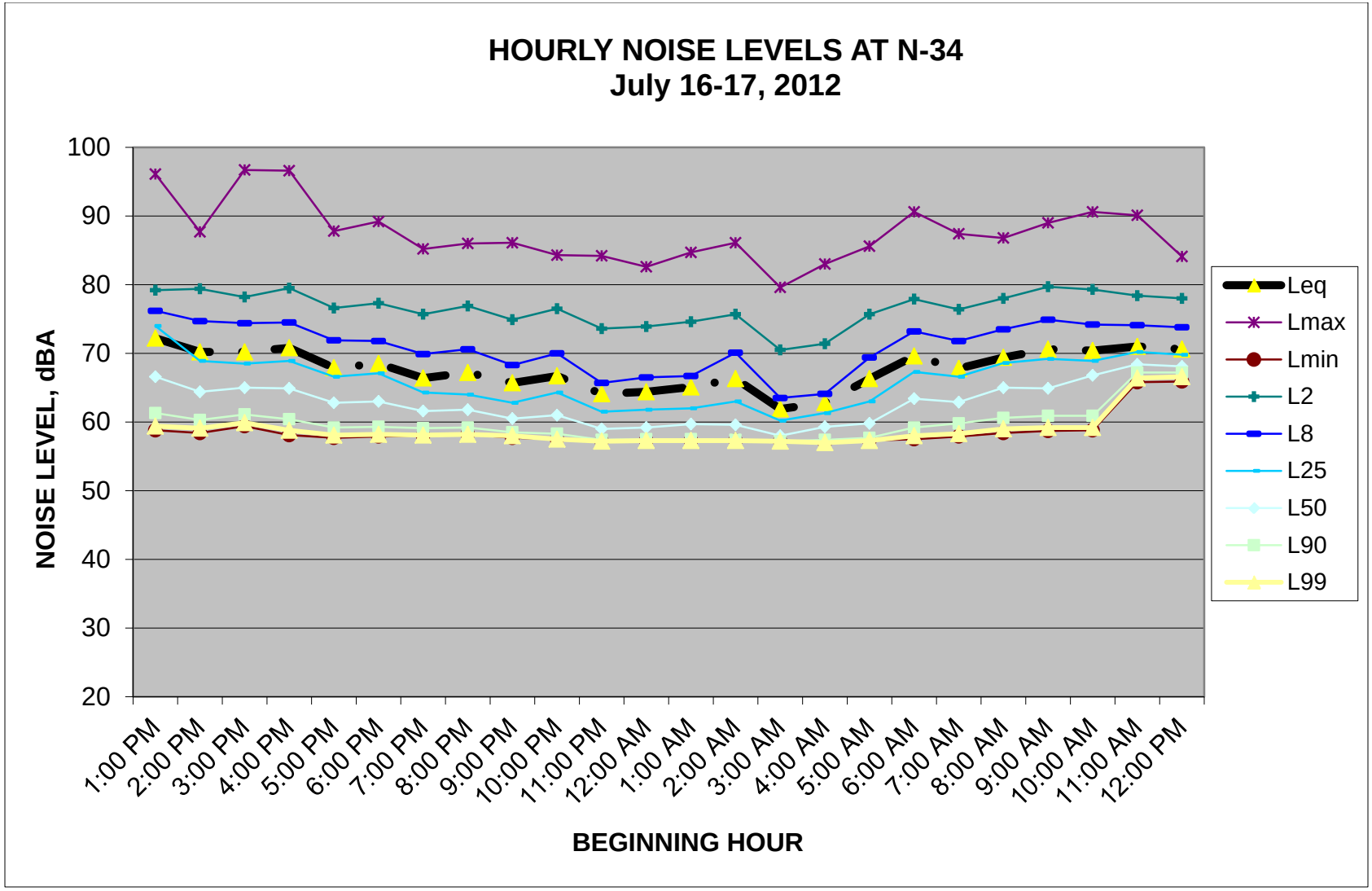


Figure F1-5Q Hourly Noise Level and Statistical Data at Location N-34

2.3.4 Baseline Exterior Lmax and SEL Noise Levels at Long Term Receivers in Long Beach

SEL noise levels at long-term sensitive receivers were separated into daytime, evening, and nighttime time periods to further describe the existing noise environment. The ranges of the maximum noise levels (Lmax) and sound exposure levels (SEL) for each sensitive receiver in Long Beach are summarized in Table F1-5.

Sensitive receivers in Long Beach included locations N1 through N3, N5, N6, N7A, N7B, N30, N31, and N34. The daytime Lmax at these locations had ranges of 64.8 to 75.5 dBA, 68.1 to 80.5 dBA, 67.4 to 87.7 dBA, 66.3 to 90.8 dBA, 76.7 to 85.4 dBA, 71.3 to 85.2 dBA, 74.5 to 90.6 dBA, 63.4 to 88.6 dBA, 66.9 to 82.5 dBA, and 79.6 to 96.7 dBA, respectively. The evening Lmax ranged from 68.0 to 72.3 dBA, 78.9 to 84.6 dBA, 73.1 to 75.4 dBA, 71.1 to 77.5 dBA, 76.6 to 83.9 dBA, 73.4 to 87.9 dBA, 74.1 to 88.7 dBA, 69.5 to 72.0 dBA, 71.0 to 75.1 dBA, and 85.2 to 86.1 dBA, at each respective location. The nighttime Lmax had ranges of 46.9 to 68.2 dBA, 67.5 to 78.9 dBA, 66.3 to 76.6 dBA, 61.9 to 81.0 dBA, 74.2 to 83.3 dBA, 69.2 to 87.0 dBA, 70.3 to 84.4 dBA, 60.7 to 83.2 dBA, 57.2 to 71.1 dBA, and 79.6 to 90.6 dBA, respectively.

The ranges of daytime SELs at these same locations were 85.1 to 94.3 dBA, 84.6 dBA, 81.8 to 103.3 dBA, 82.5 to 91.8 dBA, 81.7 to 96.5 dBA, 84.7 to 90.0 dBA, 81.6 to 94.0 dBA, 85.0 to 90.6 dBA, 84.3 to 91.8 dBA, and 103.4 to 107.8 dBA, respectively. The evening SELs ranged from 85.2 to 88.9 dBA, 88.4 dBA, 96.7 to 99.5 dBA, 93.2 to 94.1 dBA, 81.6 to 89.1 dBA, 89.1 to 94.0 dBA, 93.7 dBA, 90.7 to 92.2 dBA, 90.7 to 93.1 dBA, and 101.3 to 102.8 dBA at each respective location. The nighttime SELs had ranges of 74.9 to 85.4 dBA, 86.2 to 94.7 dBA, 86.0 to 88.3 dBA, 87.1 to 92.7 dBA, 82.6 to 90.5 dBA, 90.2 to 97.4 dBA, 90.3 to 99.4 dBA, 90.8 dBA, 80.7 to 91.8 dBA, and 97.5 to 105.2 dBA, respectively.

2.3.5 Baseline Exterior Lmax and SEL Noise Levels at Long Term Receivers in San Pedro & Wilmington

Residential receivers in San Pedro and Wilmington included locations N19, N29, and N32. The daytime Lmax at these locations had ranges of 71.1 to 89.7 dBA, 76.8 to 85.5 dBA, and 81.3 to 90.6 dBA, respectively. The evening Lmax ranged from 76.9 to 90.2 dBA, 79.5 to 80.9 dBA, and 79.8 to 83.5 dBA, at each respective location. The nighttime Lmax had ranges of 70.3 to 78.9 dBA, 77.5 to 94.9 dBA, and 79.5 to 86.7 dBA, respectively. The ranges of daytime SELs at these locations were 99.7 to 105.0 dBA, 99.6 to 102.7 dBA, and 100.1 to 102.8 dBA, respectively. The evening SELs ranged from 101.5 to 103.1 dBA, 100.3 to 102.4 dBA, and 97.2 to 99.2 dBA at each respective location. The nighttime SELs had ranges of 95.7 to 102.4 dBA, 96.2 to 104.6 dBA, and 95.0 to 99.2 dBA, respectively. The SELs at locations N29 and N32 were calculated using the Leq values and adding 35.6 dBA.

The remaining long term sensitive receivers in San Pedro and Wilmington were located at the Leeward Bay Marina (N20) and the Island Yacht Marina (N21). The daytime Lmax at the marinas had ranges of 72.2 to 104.5 dBA, and 83.9 to 98.9 dBA, respectively. The evening Lmax ranged from 82.9 to 86.3 dBA, and 85.5 to 88.1 dBA, at the respective locations. The nighttime Lmax had ranges of 70.1 to 100.0 dBA, and 84.3 to 91.9 dBA, respectively. The ranges of daytime SELs at these locations were 92.5 to 110.2 dBA, and 103.8 to 111.2 dBA, respectively. The evening SELs ranged from 97.4 to 98.0 dBA, and 106.9 to 109.5 dBA at each

respective location. The nighttime SELs had ranges of 94.9 to 111.7 dBA, and 101.2 to 110.5 dBA, respectively. A summary of the baseline Lmax and SEL at each long term receiver in San Pedro and Wilmington is presented in Table F1-5.

2.3.6 Baseline Exterior Lmax and SEL Noise Levels at Long Term Receivers in Carson

A long term noise measurement was conducted at a single family residence, 21843 Salmon Ave (N33) in Carson. The Lmax at this location ranged from 71.6 to 84.0 dBA, 78.8 to 83.5 dBA, and 68.5 to 75.4 dBA in the daytime, evening, and nighttime hours, respectively. The daytime, evening, and nighttime SELs had a range of 95.0 to 99.7 dBA, 96.3 to 98.9 dBA, and 89.4 to 94.9 dBA, respectively. The SELs at this location was calculated using the Leq average values plus 35.6 dBA. Measurement results for this receiver are presented in Table F1-5.

2.3.7 Estimated Baseline Interior Lmax and SEL Noise Levels at Long Term Receivers in Long Beach

Estimated interior noise levels were calculated based on exterior baseline noise data for two scenarios, with windows closed and with windows open. An exterior to interior noise reduction of 20 dB was applied in the case of windows closed and a conservative 12 dB reduction was utilized with windows open (FHWA, 2011).

Sensitive receivers in Long Beach included locations N1 through N3, N5, N6, N7A, N7B, N30, N31 and N34. The nighttime interior Lmax with windows closed had ranges of 26.9 to 48.2 dBA, 47.5 to 58.9 dBA, 46.3 to 56.6 dBA, 41.9 to 61.0 dBA, 54.2 to 63.3 dBA, 49.2 to 67.0 dBA, 50.3 to 64.4 dBA, 40.7 to 63.2 dBA, 37.2 to 51.1 dBA, and 59.6 to 70.6 dBA, respectively. The nighttime interior SELs with windows closed had ranges of 54.9 to 65.4 dBA, 66.2 to 74.7 dBA, 66.0 to 68.3 dBA, 67.1 to 72.7 dBA, 62.6 to 70.5 dBA, 70.2 to 77.4 dBA, 70.3 to 79.4 dBA, 70.8 dBA, 60.7 to 71.8 dBA, and 77.5 to 85.2 dBA, respectively. The nighttime interior Lmax with windows open had ranges of 34.9 to 56.2 dBA, 55.5 to 66.9 dBA, 54.3 to 64.6 dBA, 49.9 to 69.0 dBA, 62.2 to 71.3 dBA, 57.2 to 75.0 dBA, 58.3 to 72.4 dBA, 48.7 to 71.2 dBA, 45.2 to 59.1 dBA, and 67.6 to 78.6 dBA, respectively. The nighttime interior SELs had ranges of 62.9 to 73.4 dBA, 74.2 to 82.7 dBA, 74.0 to 76.3 dBA, 75.1 to 80.7 dBA, 70.6 to 78.5 dBA, 78.2 to 85.4 dBA, 78.3 to 87.4 dBA, 78.8 dBA, 68.7 to 79.8 dBA, and 85.5 to 93.2 dBA, respectively. Long term interior noise levels for receivers in Long Beach are summarized in Table F1-6.

2.3.8 Estimated Baseline Interior Lmax and SEL Noise Levels at Long Term Receivers in San Pedro & Wilmington

Residential receivers in San Pedro and Wilmington included locations N19, N29, and N32. The nighttime interior Lmax with windows closed had ranges of 50.3 to 58.9 dBA, 57.5 to 74.9 dBA, and 59.5 to 66.7 dBA, respectively. The nighttime interior SELs with windows closed had ranges of 75.7 to 82.4 dBA, 76.2 to 84.6 dBA, and 75.0 to 79.2 dBA, respectively. The nighttime interior Lmax with windows open had ranges of 58.3 to 66.9 dBA, 65.5 to 82.9 dBA, and 67.5 to 74.7 dBA, respectively. The nighttime interior SELs with windows open had ranges of 83.7 to 90.4 dBA, 84.2 to 92.6 dBA, and 83.0 to 87.2 dBA, respectively. The SELs at locations N29 and N32 were calculated using the Leq average values plus 35.6 dBA.

The remaining long term sensitive receivers in San Pedro and Wilmington were located at the Leeward Bay Marina (N20) and the Island Yacht Marina (N21). The

nighttime interior Lmax with windows closed had ranges of 50.1 to 80.0 dBA, and 64.3 to 71.9 dBA, respectively. The nighttime interior SELs with windows closed had ranges of 74.9 to 91.7 dBA, and 81.2 to 90.5 dBA, respectively. The nighttime interior Lmax with windows open had ranges of 58.1 to 88.0 dBA, and 72.3 to 79.9 dBA, respectively. The nighttime interior SELs with windows open had ranges of 82.9 to 99.7 dBA, and 89.2 to 98.5 dBA, respectively. A summary of the baseline interior Lmax and SEL at each long term receiver in San Pedro and Wilmington is presented in Table F1-6.

2.3.9 Baseline Interior Lmax and SEL Noise Levels at Long Term Receivers in Carson

A long term noise measurement was conducted at a single family residence, 21843 Salmon Ave (N33) in Carson. The interior Lmax at this location ranged from 48.5 to 55.4 dBA in the nighttime hours with windows closed. The nighttime interior SELs with windows closed had a range of 69.4 to 74.9 dBA. The nighttime interior Lmax at this location with windows open ranged from 56.5 to 63.4 dBA. The nighttime interior SELs with windows open had a range of 77.4 to 82.9 dBA. The SELs at this location were calculated using the Leq average values plus 35.6 dBA. Measurement results for this receiver are presented in Table F1-6.

2.3.10 Existing Classroom Noise Reduction Measurements

Sound insulation tests were conducted at selected classrooms to determine the noise reduction provided by the existing building shell of the classroom spaces exposed to vehicular and rail noise. The measurements were conducted for a field insertion loss (FIL) test in general accordance with ASTM E336-90, *Measurement of Airborne Sound Insulation in Buildings* (the field insertion loss is the difference between the average outside noise level and the average inside noise level). Simultaneous interior and exterior noise measurements were conducted using a pink noise generator as a sound source amplified through a single loudspeaker on the outside of the exterior building wall. The noise reduction data was used to predict future interior noise levels within the classrooms and assess the noise level within these spaces and is summarized in Table F1-7.

Exterior measurements were conducted at 3 meters (10 feet) from the building wall and interior measurements at the center of the room with the windows closed. Classrooms at Bethune School and Cabrillo Child Development Center are located directly adjacent to the Terminal Island Freeway and did not require a loudspeaker to conduct the noise reduction test. The noise reduction data for these two classrooms represent the ambient level without the random noise test signal used for the sound insulation test. These measurements were taken at the same interior and exterior locations as the sound insulation test, with the windows closed.

Table F1-5. Summary of Baseline Lmax and SEL at Long Term Noise Receptors.

Rec.	Loc.	Description	Date	Time[1]	A-WEIGHTED SOUND LEVEL, dBA	
					L_{max}	SEL
R1	N1	Residence at 2789 Webster	3-12-12 to 3-13-12	Day Evening Night	64.8 - 75.5 68.0 – 72.3 46.9 – 68.2	**85.1 - 94.3**[2] **85.2 – 88.9**[2] **74.9 – 85.4**[2]
R2	N2	Buddhist Temple at Willow and Webster	3-12-12 to 3-13-12	Day Evening Night	68.1 - 80.5 78.9 - 84.6 67.5 - 78.9	84.6 88.4 **86.2 – 94.7**[2]
R3	N3	Hudson Elementary School Playground	3-13-12 to 3-15-12	Day Evening Night	67.4 - 87.7 73.1 - 75.4 66.3 - 76.6	81.8 - 103.3 **96.7 – 99.5**[2] 86.0 - 88.3
R5	N5	Cabrillo High School	3-18-12 to 3-19-12	Day Evening Night	66.3 - 90.8 71.1 - 77.5 61.9 - 81.0	82.5 - 91.8 **93.2 – 94.1**[2] **87.1 – 92.7**[2]
R6	N6	Cabrillo Child Development Center	3-11-12 to 3-12-12	Day Evening Night	76.7 - 85.4 76.6 - 83.9 74.2 - 83.3	81.7 - 96.5 81.6 - 89.1 82.6 - 90.5
R7A	N7A	Century Villages at Cabrillo	3-21-12 to 3-22-12	Day Evening Night	71.3 - 85.2 73.4 - 87.9 69.2 - 87.0	84.7 - 90.0 89.1 - 94.0 **90.2 – 97.4**[2]
R7B	N7B	Cabrillo Park	3-22-12 to 3-23-12	Day Evening Night	74.5 - 90.6 74.1 - 88.7 70.3 - 84.4	81.6 - 94.0 93.7 **90.3 – 99.4**[2]
R19	N19	539 Shields Drive	1-14-08 to 1-15-08	Day Evening Night	71.1 - 89.7 76.9 – 90.2 70.3 – 78.9	99.7 - 105.0 101.5 – 103.1 95.7 – 102.4
R20	N20	Leeward Bay Marina	1-17-08 to 1-18-08	Day Evening Night	72.2 - 104.5 82.9 – 86.3 70.1 – 100.0	92.5 - 110.2 97.4 – 98.0 94.9 – 111.7
R21	N21	Island Yacht Marina	1-15-08 to 1-16-08	Day Evening Night	83.9 - 98.9 85.5 – 88.1 84.3 – 91.9	103.8 - 111.2 106.9 – 109.5 101.2 – 110.5
R29	N29	1710 Mauretania Street	4-26-11 to 4-27-11	Day Evening Night	76.8 - 85.5 79.5 – 80.9 77.5 – 94.9	**99.6 - 102.7**[2] **100.3 – 102.4**[2] **96.2 – 104.6**[2]
R30	N30	Stephens Middle School Classroom PC2	3-19-12 to 3-20-12	Day Evening Night	63.4 - 88.6 69.5 - 72.0 60.7 - 83.2	85.0 - 90.6 **90.7 – 92.2**[2] 90.8
R31	N31	Webster School Classroom B-1	3-12-12 to 3-14-12	Day Evening Night	66.9 - 82.5 71.0 - 75.1 57.2 - 71.1	84.3 - 91.8 **90.7 – 93.1**[2] **80.7 – 91.8**[2]
R32	N32	1619 Cruces St	4-28-11 to 4-29-11	Day Evening Night	81.3 - 90.6 79.8 – 83.5 79.5 – 86.7	**100.1 - 102.8**[2] **97.2 – 99.2**[2] **95.0 – 99.2**[2]
R33	N33	21843 Salmon Ave	4-27-11 to 4-28-11	Day Evening Night	71.6 - 84.0 78.8 – 83.5 68.5 – 75.4	**95.0 - 99.7**[2] **96.3 – 98.9**[2] **89.4 – 94.9**[2]
R34	N34	Mambo Sound & Recording Studio	7-16-12 to 7-17-12	Day Evening Night	79.6 – 96.7 85.2 – 86.1 79.6 – 90.6	**103.4 – 107.8** **101.3 – 102.8** **97.5 – 105.2**

Notes:

1 Daytime hours are from 7:00 AM until 7:00 PM, Evening hours are from 7:00 PM until 10:00 PM, Nighttime hours are from 10:00 PM until 7:00 AM

2 SEL is calculated from SEL=Leq+10log(T) where T=3600 sec (or 1 hr); Thus, SEL=Leq+35.6 dB

Table F1-6. Summary of Estimated Baseline Interior Lmax and SEL at Long Term Noise Receptors

Rec.	Loc.	Description	Date	Time[1]	Exterior Noise Levels, dBA		Interior Noise Levels With Windows Closed, dBA[3]		Interior Noise Levels With Windows Open, dBA[4]	
					L_{max}	SEL	L_{max}	SEL	L_{max}	SEL
R1	N1	Residence at 2789 Webster	3-12-12 to 3-13-12	Night	46.9 – 68.2	**74.9 – 85.4[2]**	26.9 – 48.2	**54.9 – 65.4[2]**	34.9 – 56.2	**62.9 – 73.4[2]**
R2	N2	Buddhist Temple at Willow and Webster	3-12-12 to 3-13-12	Night	67.5 - 78.9	**86.2 – 94.7[2]**	47.5 - 58.9	**66.2 – 74.7[2]**	55.5 - 66.9	**74.2 – 82.7[2]**
R3	N3	Hudson Elementary School Playground	3-13-12 to 3-15-12	Night	66.3 - 76.6	86.0 - 88.3	46.3 - 56.6	66.0 - 68.3	54.3 - 64.6	74.0 - 76.3
R5	N5	Cabrillo High School	3-18-12 to 3-19-12	Night	61.9 - 81.0	**87.1 – 92.7[2]**	41.9 - 61.0	**67.1 – 72.7[2]**	49.9 - 69.0	**75.1 – 80.7[2]**
R6	N6	Cabrillo Child Development Center	3-11-12 to 3-12-12	Night	74.2 - 83.3	82.6 - 90.5	54.2 - 63.3	62.6 - 70.5	62.2 - 71.3	70.6 - 78.5
R7A	N7A	Century Villages at Cabrillo	3-21-12 to 3-22-12	Night	69.2 - 87.0	**90.2 – 97.4[2]**	49.2 - 67.0	**70.2 – 77.4[2]**	57.2 - 75.0	**78.2 – 85.4[2]**
R7B	N7B	Cabrillo Park	3-22-12 to 3-23-12	Night	70.3 - 84.4	**90.3 – 99.4[2]**	50.3 - 64.4	**70.3 – 79.4[2]**	58.3 - 72.4	**78.3 – 87.4[2]**
R19	N19	539 Shields Drive	1-14-08 to 1-15-08	Night	70.3 – 78.9	95.7 – 102.4	50.3 – 58.9	75.7 – 82.4	58.3 – 66.9	83.7 – 90.4
R20	N20	Leeward Bay Marina	1-17-08 to 1-18-08	Night	70.1 – 100.0	94.9 – 111.7	50.1 – 80.0	74.9 – 91.7	58.1 – 88.0	82.9 – 99.7
R21	N21	Island Yacht Marina	1-15-08 to 1-16-08	Night	84.3 – 91.9	101.2 – 110.5	64.3 – 71.9	81.2 – 90.5	72.3 – 79.9	89.2 – 98.5
R29	N29	1710 Mauretania Street	4-26-11 to 4-27-11	Night	77.5 – 94.9	**96.2 – 104.6[2]**	57.5 – 74.9	**76.2 – 84.6[2]**	65.5 – 82.9	**84.2 – 92.6[2]**
R30	N30	Stephens Middle School Classroom PC2	3-19-12 to 3-20-12	Night	60.7 - 83.2	90.8	40.7 - 63.2	70.8	48.7 - 71.2	78.8
R31	N31	Webster School Classroom B-1	3-12-12 to 3-14-12	Night	57.2 - 71.1	**80.7 – 91.8[2]**	37.2 - 51.1	**60.7 – 71.8[2]**	45.2 - 59.1	**68.7 – 79.8[2]**
R32	N32	1619 Cruces St	4-28-11 to 4-29-11	Night	79.5 – 86.7	**95.0 – 99.2[2]**	59.5 – 66.7	**75.0 – 79.2[2]**	67.5 – 74.7	**83.0 – 87.2[2]**
R33	N33	21843 Salmon Ave	4-27-11 to 4-28-11	Night	68.5 – 75.4	**89.4 – 94.9[2]**	48.5 – 55.4	**69.4 – 74.9[2]**	56.5 – 63.4	**77.4 – 82.9[2]**
R34	N34	Mambo Sound & Recording Studio	7-16-12 to 7-17-12	Night	79.6 – 90.6	**97.5 – 105.2**	59.6 – 70.6	**77.5 – 85.2**	67.6 – 78.6	**85.5 – 93.2**

Notes:
1 Daytime hours are from 7:00 AM until 7:00 PM, Evening hours are from 7:00 PM until 10:00 PM, Nighttime hours are from 10:00 PM until 7:00 AM
2 SEL is calculated from Leq+35.6 dB
3 Exterior to interior noise reduction of 20 dB with windows closed (FHWA, 2011)
4 Exterior to interior noise reduction of 12 dB with windows open (FHWA, 2011)

Table F1-7. Summary of Classroom Noise Reduction Measurements

Location	*Description*	*Date*	*Leq, dBA*	*Noise Reduction, dB*	*Notes*
Bethune School	Classroom 102	2/12/2008	64.9 - Exterior 38.8 - Interior	26.1	Traffic Noise Source
Cabrillo Child Development Center	#2 Exterior, #4 Interior	2/11/2008	72.3 - Exterior 43.7 - Interior	28.6	Traffic Noise Source
Cabrillo High School	Classroom 1128	2/19/2008	105.5 - Exterior 61.1 - Interior 32.7 - Ambient	44.4	Loudspeaker Source
Hudson School	Classroom 52	2/19/2008	103.8 - Exterior 70.8 - Interior 36.9 - Ambient	33	Loudspeaker Source
Stephens Middle School	Classroom PC2	2/19/2008	98.1 – Exterior 59.8 - Interior 31.4 - Ambient	38.3	Loudspeaker Source
Webster School	Classroom B-48	2/19/2008	105.3 - Exterior 66.7 - Interior 31.9 - Ambient	38.6	Loudspeaker Source

2.4 Existing Vibration Environment

Vibration-sensitive receivers are comprised of single-family and multi-family residences, potential residences within industrial zoned properties, recording studios, and institutional uses such as fire stations, schools, child development facilities, and adult education centers. Ground-borne vibration at the sensitive receivers in the study area is generated by heavy trucks, trains, automotive traffic, and nearby industrial activity. The amount of vibration experienced at each receiver is dependent on the source type, source to receiver distance, soil characteristics, vehicle type/weight, pavement type/condition, and rail type/condition.

Ground-borne vibration levels were monitored to document existing vibration levels at sensitive receivers nearest to the proposed Project site and designated truck routes (shown as V# in Figure F1-3). These monitoring locations are representative of vibration-sensitive receptors in the study area.

2.4.1 San Pedro & Wilmington

Short term ground-borne vibration measurements were conducted at five locations in San Pedro and Wilmington (V7 through V11 in Figure F1-3), representing two fire stations, a commercial/residential building and two residences (Table F1-8). The measured maximum vibration velocities were 67.3, 81.5, 78.2, 56.8, and 79.7 VdB, respectively. The predominant source of vibration contributing to the baseline vibration environment at all three locations was truck traffic on nearby streets. At

Receivers V10 and V11, Lmax ranged from 38.1 to 79.7 VdB. At each of these locations, truck traffic and rail movements on the Alameda Corridor contributed to the measurement data.

2.4.2 Long Beach

Short-term ground-borne vibration measurements were conducted at six receiver locations in Long Beach (V1 through V6, V13 in Figure F1-3), representing four schools, a potential residential receiver, a fire station, and a recording studio, respectively. Measured maximum vibration velocities at the receivers V1–V6 were 64.3, 69.0, 75.5, 79.4, 80.2, and 69.2 VdB, respectively (Table F1-8). Maximum vibration velocity levels at receiver V13 ranged from 86.9 to 106.2 VdB. The predominant source of vibration at these receptors was truck traffic, but site-specific sources such as trains on the San Pedro Branch, repair shop activity, worker activity, vehicles in a parking lot, fire trucks, and potentially helicopters contributed to the baseline vibration environment.

2.4.3 Carson

A short-term ground-borne vibration measurement was conducted at receiver location V12 in Carson (Figure F1-3), representing a residential receiver near the Alameda Corridor. Measured maximum vibration velocities at this location ranged from 53.0 to 68.8 VdB, (Table F1-8). The predominant source of vibration was truck traffic, but site-specific sources such as trains on the Alameda Corridor also contributed to the baseline vibration environment.

2.5 Predicted Existing Traffic Noise Levels

Existing traffic noise levels generated by vehicular traffic in the proposed Project vicinity were calculated using the FHWA traffic noise model methodologies and traffic data from the Traffic Study (refer to Chapter 3.10). Many roadway segments experience noise levels above 70 CNEL. However, as Table F1-9 shows, only some of those segments have sensitive land uses that currently experience noise levels above 70 CNEL at a distance of 100 feet. Traffic noise levels above 70 CNEL are normally considered incompatible with noise guidelines. Those segments occur on Alameda Street, E. Anaheim Street, E. Harry Bridges Boulevard, E. Sepulveda Boulevard, John S. Gibson Boulevard, Long Beach Freeway, Terminal Island Freeway, Pacific Coast Highway, W. Anaheim Street, W. Harry Bridges Boulevard, W. Pacific Coast Highway, and W. Willow Street.

Table F1-8. Summary of the Ambient Ground-Borne Vibration Measurement Data

Location	*Description*	*Date*	*Start*	*Stop*	*Lmax – Velocity Level, VdB*		*Predominant Sources of Vibration*
					Low	*High*	
V1	Stephens Middle School Classroom PC2	3-7-08	9:42 AM	4:17 PM	51.6	64.3	School Activities, Trains
V2	Hudson Elementary School Playground	3-6-08	10:06 AM	4:21 PM	55.9	69.0	Traffic on TI Freeway, Trains
V3	Cabrillo Child Development Center	3-4-08	10:02 AM	4:33 PM	58.9	75.5	Traffic on TI Freeway, Trains
V4	Bethune School	3-3-08	10:00 AM	3:43 PM	62.6	79.4	Traffic on TI Freeway, Trains
V5	Industrial Area with Potential Residential at 1332 Canal	3-24-08	3:40 PM	5:55 PM	63.7	80.2	Truck traffic, Repair Shop Activity, Worker Activity
V6	Fire Station #6 on Queensway	3-24-08	9:20 AM	10:20 AM	62.6	69.2	Traffic, Vehicles in Parking Lot, Fire Trucks, Helicopters
V7	New Fire Station #24 at Pier Avenue and Route 47	3-26-08	3:34 PM	4:53 PM	55.0	67.3	Trucks, Trains, and Power Plant
V8	Fire Station #210 on Ferry St	3-24-08	4:58 PM	5:58 PM	59.3	81.5	Trucks
V9	Commercial/ Residential Building at 200 Broad Street	3-24-08	11:30 AM	12:30 PM	55.6	78.2	Trucks on Harry Bridges and Broad St., Vehicular Traffic
V10	1710 Mauretania Street	4-26-11 to 4-27-11	2:00 PM	2:00 PM	38.1	56.8	Trucks and Trains
V11	1619 Cruces St	4-28-11 to 4-29-11	3:25 PM	3:00 PM	53.1	79.7	Trucks and Trains
V12	21843 Salmon Ave	4-27-11	4:00 PM	5:00 PM	53.0	68.8	Trucks and Trains
V13	Mambo Sound & Recording Studio	7-16-12 to 7-17-12	12:36 PM	1:00 PM	86.9	106.2	Trucks

Table F1-9. Calculated Baseline Roadway Traffic Noise Levels

ROADWAY SEGMENT	Leq @ Rec.	CNEL @ Rec.	DISTANCE TO CNEL CONTOURS (FT)		
			70.0 dBA	65.0 dBA	60.0 dBA
1ST ST					
e/o East RD	73.6	74.6	261	545	1081
ACCESS RD					
e/o Ferry St	66.8	67.8	63	164	358
ALAMEDA ST					
n/o Anaheim St	70.9	71.9	150	341	702
w/o Eubank Ave	72.6	73.6	211	456	917
s/o PCH	72.8	73.8	222	476	954
s/o Anaheim St	73.5	74.5	257	539	1069
E 223RD ST					
w/o I-405 Off ramps	71.1	72.1	155	351	720
E ANAHEIM ST					
between Avalon Blvd and Broad Ave	64.5	65.5	39	110	247
between Eubank Ave and Sanford St	64.8	65.8	42	115	258
between Sanford Ave and Sanford St	64.9	65.9	43	118	263
between Anaheim and Henry Ford	70.7	71.7	143	328	676
e/o Henry Ford Ave	72	73	186	411	832
w/o E I St	71.2	72.2	158	357	732
e/o Sanford Ave	67.9	68.9	79	198	424
w/o Anaheim Way	72	73	186	411	832
between Henry Ford Ave and Terminal Isla	72	73	186	411	832
E HARRY BRIDGES BLVD					
e/o Avalon Blvd	71.1	72.1	155	352	722
E I ST					
between Terminal Island Fwy and Anaheim	70.5	71.5	136	315	652
E OPP ST					
w/o Farragut Ave	43.4	44.4	0	3	8
E SEPULVEDA BLVD					
e/o Alameda St	69.7	70.7	117	277	578
w/o Dolores St	68.3	69.3	87	216	459
w/o Wilmington Ave	69.1	70.1	102	247	521
e/o Wilmington Ave	68	69	81	202	432
e/o Dolores St	67.9	68.9	80	200	429
w/o Avalon Blvd	67.9	68.9	79	199	426
EAST RD					
n/o 1st St	64.9	65.9	42	117	260
s/o 1st St	64.1	65.1	36	102	230
FARRAGUT AVE					

Between Terminal Island Fwy SB ramps and	69	70	99	241	510
s/o E OPP St	43.4	44.4	0	3	8
FIGUEROA ST					
between Seaside Ave and Access Rd	67.1	68.1	68	174	377
between Terminal Way and Pitchard St	69.7	70.7	117	277	578
HARBOR FWY					
n/o Anaheim St	64.3	65.3	38	106	239
n/o PCH	64.8	65.8	41	115	257
n/o PCH off Ramp	82	83	1528	2435	4295
s/o Sepulveda Blvd	81.9	82.9	1476	2365	4181
n/o Sepulveda Blvd	82.1	83.1	1537	2447	4315
n/o 223rd St	82.3	83.3	1616	2554	4488
n/o 220th St	82.4	83.4	1668	2623	4599
n/o Carson St	82.7	83.7	1749	2731	4774
n/o Redondo Beach Blvd	82.7	83.7	1777	2767	4831
between 135 th St and Rosecrans Ave	82.7	83.7	1752	2734	4779
n/o 135th St	82.4	83.4	1666	2620	4595
n/o Alondra	82.6	83.6	1727	2701	4725
between Del Amo Blvd and Torrance Blv	82.6	83.6	1719	2691	4710
between 168th and Alondra	82.8	83.8	1801	2799	4883
n/o Del Amo Blvd	82.9	83.9	1835	2843	4954
n/o I-405	82	83	1512	2414	4261
s/o I-405	82	83	1511	2413	4258
s/o 182nd St	82.3	83.3	1632	2575	4521
between Artesia Blvd and 168th	82.1	83.1	1568	2489	4383
s/o SR-91	82.2	83.2	1581	2507	4412
s/o PCH off Ramp	81.6	82.6	1409	2274	4032
n/o El Segundo Blvd	82.5	83.5	1696	2661	4661
s/o El Segundo Blvd	82.4	83.4	1665	2619	4593
n/o Anaheim St	81.8	82.8	1457	2340	4140
s/o 120th St	82.4	83.4	1669	2625	4602
n/o 120th St	81.9	82.9	1484	2376	4199
n/o I-105	82.4	83.4	1656	2607	4573
n/o 108th St	83	84	1887	2911	5064
s/o 223rd St	82.4	83.4	1638	2583	4535
s/o 190th St	82.3	83.3	1616	2554	4487
HARBOR PLZ					
between Pier F Ave and Pico Ave	69	70	100	243	513
HARBOR SCENIC DR	71.5	72.5	168	377	769
w/o Goldenshore St	72.3	73.3	201	437	882
s/o Shoreline Dr	73.1	74.1	236	502	1002
n/o Shoreline Dr					
HARBOR SCENIC WAY					

e/o Queens Hwy	68.5	69.5	91	224	475
e/o Port Access Rd	69	70	100	243	513
w/o Port Access Rd	69	70	100	243	513
JOHN S GIBSON BLVD					
n/o I-110 Ramps	69.7	70.7	117	276	577
LONG BEACH FWY					
n/o Imperial Hwy	84.8	85.8	2749	4003	6792
s/o Imperial Hwy	85.1	86.1	2883	4168	7049
n/o I-105	84.7	85.7	2678	3916	6655
s/o I-105	84.7	85.7	2664	3898	6628
n/o Rosecrans Ave	84.7	85.7	2656	3888	6613
s/o Rosecrans Ave	85.9	86.9	3424	4820	8061
n/o Alondra	85.9	86.9	3405	4798	8026
between Alondra and Rosecrans	85.9	86.9	3428	4825	8069
s/o Alondra	85.8	86.8	3400	4792	8017
n/o SR-91	85.3	86.3	3033	4350	7333
n/o Artesia Blvd	84.5	85.5	2566	3776	6436
s/o Artesia Blvd	85.3	86.3	3037	4355	7340
n/o Long Beach Blvd	85.5	86.5	3153	4496	7559
s/o Long Beach Blvd	85.3	86.3	3051	4372	7367
n/o Del Amo Blvd	85.4	86.4	3116	4451	7489
s/o Del Amo Blvd Off ramp	85.4	86.4	3069	4394	7401
s/o Del Amo Blvd	85.5	86.5	3139	4478	7532
n/o Wardlow Rd	84	85	2326	3475	5962
s/o Wardlow Rd	84.6	85.6	2603	3823	6510
n/o Willow St	83.6	84.6	2139	3237	5584
s/o Willow St	84.4	85.4	2518	3717	6343
between off/of namps at Willow St	84.4	85.4	2536	3739	6377
s/o Anaheim St	83.5	84.5	2060	3135	5422
s/o PCH	83.5	84.5	2060	3135	5422
n/o Anahiem St	83.7	84.7	2177	3285	5661
s/o Firestone Blvd	85	86	2875	4158	7033
s/o 9th St	80.8	81.8	1194	1976	3543
n/o Long Beach Blvd	85.3	86.3	3063	4386	7390
n/o 9th St	81.8	82.8	1462	2346	4149
n/o 10th St	82.3	83.3	1623	2562	4501
s/o On ramp at Del Amo Blvd	85.4	86.4	3100	4432	7460
s/o Willow St	84.3	85.3	2481	3670	6270
n/o Anaheim St	83.7	84.7	2158	3261	5623
N HENRY FORD AVE					
n/o Terminal Island fwy	70.5	71.5	137	317	655
n/o Anaheim St	68.7	69.7	94	231	489
N SEASIDE AVE					

e/o Navy Way	78.6	79.6	753	1338	2472
e/o Access Rd ramp	74.6	75.6	325	657	1283
w/o Navy Way	77.9	78.9	648	1178	2199
e/o Ferry St	71.8	72.8	181	401	814
e/o Navy Way ramp	79.6	80.6	910	1571	2868
e/o Navy Way	78.6	79.6	753	1338	2472
NAVY WAY					
s/o Reeves Ave	70.4	71.4	135	313	648
s/o Terminal Way	72.4	73.4	205	446	898
NEW DOCK ST					
w/o Henry Ford Ave	68.4	69.4	88	217	462
e/o Henry Ford Ave	70.7	71.7	142	326	673
w/o SB off ramp Terminal Island Fwy	70.7	71.7	142	326	673
w/o NB on ramp Terminal Island Fwy	68	69	81	202	433
between Terminal Island Fwy SB and NB Ra	68	69	81	202	433
PACIFIC COAST HIGHWAY					
between Avalon Blvd and Eubank Ave	71	72	153	348	714
between Watson Ave and Eubank Ave	71	72	152	345	710
w/o Alameda St	71.5	72.5	168	375	766
w/o East Rd	71.2	72.2	159	358	734
w/o East Rd	70.6	71.6	140	322	666
between Watson Ave and Blinn Ave	71	72	151	344	707
PICO AVE					
s/o Ocean Blvd	65.5	66.5	48	130	288
n/o Ocean Blvd	67.9	68.9	79	198	425
n/o Pier C St	71.3	72.3	162	364	745
s/o Pier C St	70.4	71.4	135	313	648
n/o Pier DSt	70.4	71.4	135	313	649
PIER A WAY					
e/o Henry Ford Ave	64.5	65.5	39	110	247
e/o Henry Ford Ave	66.8	67.8	63	163	356
e/o Henry Ford Ave	68.5	69.5	90	223	473
between Terminal Island Fwy and Henry Fo	53.4	54.4	4	15	40
n/o Terminal Island Fwy	63.4	64.4	31	90	206
e/o Henry Ford Ave	63	64	28	83	191
e/o Henry Ford Ave	64.1	65.1	36	101	229
PIER B ST					
s/o 9th St	67.3	68.3	70	180	389
w/o Edison Ave	67.1	68.1	67	173	375
n/o Pier A way	64.5	65.5	39	110	247
PIER C ST					

w/o Pier B St	65.9	66.9	52	139	307
w/o Pier B St	65.3	66.3	46	127	281
PIER D AVE					
s/o Pier D St	59.4	60.4	13	44	106
PIER D ST					
w/o I-710	67.3	68.3	70	180	390
PIER F AVE					
s/o Harbor Plaza	68.1	69.1	82	206	440
PIER G AV					
s/o Harbor Plaza	47.3	48.3	1	5	15
s/o Harbor Plaza	47.3	48.3	1	5	15
PIER J WAY					
e/o Panorama Dr	69	70	100	241	510
PORT ACCESS RD					
e/o Ocean Blvd Ramps	70.3	71.3	130	303	629
n/o New Dock St	66.4	67.4	58	154	336
n/o New Dock St	66	67	54	144	316
s/o Pier J way	68.2	69.2	85	211	451
s/o Pier J way	69	70	100	241	510
n/o Pier J way	68.2	69.2	85	211	451
s/o Harbor Scenic way	67.7	68.7	77	194	417
QUEENSWAY DR					
s/o Harbor Scenic Dr	67.6	68.6	75	190	409
S ALAMEDA ST					
n/o Wardlow Rd	68.6	69.6	93	227	482
S FRIES AVE					
s/o Water St	67.7	68.7	76	193	414
between Harry Bridges Blvd and Water St	66	67	53	142	313
S HARBOR SCENIC DR					
s/o Shoreline Dr	72	73	187	411	833
w/o Goldenshore St	72.4	73.4	204	443	893
e/o Goldenshore St	72.4	73.4	202	440	887
w/o Panorama Dr					
S PICO AVE					
s/o Embarcadero	65.7	66.7	50	136	300
n/o Harbor Scenic Dr ramp	69.4	70.4	108	260	545
s/o Harbor Scenic Dr ramp	68.9	69.9	97	237	501
SAN DIEGO FWY					
e/o I-110	83.5	84.5	2102	3190	5509
e/o Wilmington Blvd	83.4	84.4	2043	3114	5389

w/o Santa Fe Ave	83.9	84.9	2265	3398	5840
e/o 218th St	84.1	85.1	2357	3514	6023
w/o Alameda St	83.6	84.6	2132	3228	5569
e/o Wilmington Ave	83.4	84.4	2028	3094	5356
w/o Wilmington Ave	83.5	84.5	2082	3165	5469
s/o Carson St	83.4	84.4	2036	3105	5373
n/o Carson St	83.3	84.3	2006	3066	5312
n/o 213th St	83.4	84.4	2051	3124	5404
e/o Avalon Blvd	83.3	84.3	2014	3076	5327
w/o Avalon Blvd	83.5	84.5	2063	3139	5428
SAN GABRIEL AV					
n/o PCH	64	65	35	101	227
TERMINAL ISLAND FWY					
s/o PCH	75.1	76.1	358	713	1384
n/o PCH	74.3	75.3	302	618	1213
between Off and loop On ramp at PCH	75.1	76.1	357	712	1381
s/o PCH off ramp	77	78	537	1004	1898
between Henry Ford Ave and Anaheim St	75.5	76.5	390	767	1480
n/o Ocean Blvd	71.8	72.8	178	396	804
s/o Henry Ford Ave	73.2	74.2	241	511	1018
e/o Seaside Ave	74	75	284	587	1156
s/o Willow St	70.5	71.5	137	316	653
TERMINAL WAY					
w/o Ferry St	71.4	72.4	166	373	762
w/o Eaire St	70.9	71.9	148	338	696
s/o Navy Way	70.7	71.7	143	328	676
s/o Navy Way	68.4	69.4	88	217	462
s/o Navy Way	70.7	71.7	143	328	676
s/o Navy Way	66.9	67.9	64	167	362
s/o Navy Way	67	68	66	170	368
s/o Navy Way	68.8	69.8	96	233	494
W 9TH ST					
e/o Caspian Ave	63	64	28	84	192
s/o Anaheim St	67.7	68.7	75	191	411
e/o Santa Fe Ave	66.8	67.8	63	164	358
w/o Caspian Ave	64.4	65.4	38	107	240
n/o Pier B St	59.7	60.7	14	47	113
w/o Santa Fe Ave	68	69	82	205	438
s/o Pier B St	69	70	100	243	513
n/o Pier B St	65.6	66.6	49	133	295
W ANAHEIM ST					
e/o Harbor Ave	68.6	69.6	91	225	477
e/o Santa Fe Ave	72.1	73.1	191	420	849

w/o Harbor Ave	70.3	71.3	131	304	631
w/o Seabright Ave	70.9	71.9	148	338	696
w/o E I St	68.8	69.8	95	233	493
w/o Figueroa PL	68.2	69.2	84	209	446
between Wilmington and Neptune Ave	64.5	65.5	39	110	247
between Frigate Ave and Wilmington Blvd	64.8	65.8	41	115	258
e/o Neptune	64.3	65.3	38	106	239
between Neptune Ave and Fries Ave	64.2	65.2	37	104	235
w/o Frigate Ave	65.1	66.1	44	121	270
e/o Figueroa PL	68.4	69.4	88	217	462
between Seabright Ave and Santa Fe Ave	70.6	71.6	141	323	668
between Fries Ave and Avalon Blvd	65.1	66.1	44	120	269
between I-710 SB and NB Ramps	68.8	69.8	97	235	498
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	70.5	71.5	138	318	658
between Hawaiian Ave and Wilmington Blvd	71	72	152	346	711
between Neptune Ave and Fries Ave	69.9	70.9	121	285	595
between Figueroa St and Mar Vista Ave	71	72	152	345	709
between Fries Ave and Avalon Blvd	71.2	72.2	158	357	731
between Mar Vista Ave and Hawaiian Ave	71	72	152	345	709
W I ST					
n/o Anaheim St	61.6	62.6	21	65	153
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	68.1	69.1	82	205	438
w/o I-110 SB off ramp	68.3	69.3	87	215	459
between I-710 NB and SB ramps	71.7	72.7	175	389	792
e/o San Gabriel Ave	72.9	73.9	228	487	973
between San Gabriel Ave and Santa Fe Ave	72.9	73.9	225	482	964
e/o Wilmington Blvd	68.3	69.3	86	214	455
e/o Figueroa St	68.1	69.1	82	206	440
between Neptune Ave and Avalon Blvd	68.3	69.3	86	213	454
between Terminal Island Fwy SB and NB ra	71.6	72.6	172	383	781
e/o Santa Fe Ave	72.7	73.7	215	464	931
e/o Harbor Ave	71.5	72.5	170	380	774
w/o Terminal Island Fwy	71.5	72.5	168	376	767
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	67.9	68.9	80	200	429
between Harbor Scenic Dr and Pier J Way	68.5	69.5	90	223	473
W SEPULVEDA BLVD					
e/o SB I-110 off Ramp	70.1	71.1	126	294	611
w/o NB I-110 off ramp	70.1	71.1	125	294	611
w/o Figueroa St	69.2	70.2	104	251	528
e/o Figueroa St	67	68	65	169	367

between SB and NB I-110 Ramps	70.1	71.1	127	296	616
W WATER ST					
between Fries Ave and Avalon Blvd	62.3	63.3	25	75	173
W WILLOW ST					
between NB and SB Terminal Island Fwy	70.7	71.7	142	327	674
between Terminal Island Fwy and Santa Fe	68.1	69.1	83	207	443
between Santa Fe Ave and Easy Ave	67.9	68.9	79	199	427
e/o Easy Ave	69	70	100	242	512
w/o SB I-710 ramps	68	69	82	204	437
w/o NB I-710 on ramp	68.5	69.5	89	220	468
SAN DIEGO FWY					
SB e/o Wilmington Ave	74	75	283	584	1152
SB w/o Wilmington Ave	74.3	75.3	306	625	1226
SB s/o Carson St	74.2	75.2	300	614	1207
NB n/o Carson St	75.3	76.3	376	744	1439
NB n/o 213th St	74.8	75.8	340	682	1329
NB e/o Avalon Blvd	75.4	76.4	380	750	1450
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB w/o Avalon Blvd	76	77	434	840	1609
SB e/o Avalon Blvd	74.8	75.8	338	679	1323
NB w/o Wilmington Ave	74.7	75.7	328	662	1292
NB e/o 218th St	75.3	76.3	372	736	1425
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB s/o Carson St	74.7	75.7	328	662	1292
SB n/o Carson St	74.6	75.6	324	656	1282
SAN GABRIEL AV					
n/o PCH	65	66	43	119	266
TERMINAL ISLAND FWY					
s/o PCH	72.8	73.8	222	476	954
n/o PCH	71.8	72.8	181	400	812
n/o Ocean Blvd	73.6	74.6	259	543	1077
NB s/o PCH	73.2	74.2	242	512	1019
SB n/o PCH	72.1	73.1	190	418	845
NB between Off and loop On ramp at PCH	73.2	74.2	242	512	1019
NB s/o PCH off ramp	76	77	428	830	1593
SB n/o Anaheim St	71.2	72.2	158	357	732
NB between Henry Ford Ave and Anaheim St	74.6	75.6	325	658	1285
NB n/o Ocean Blvd	72.6	73.6	213	460	924
SB n/o Ocean Blvd	71	72	152	346	710
s/o Henry Ford Ave	74.1	75.1	290	596	1174
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002

e/o Seaside Ave	72.5	73.5	208	451	908
SB s/o Anaheim Way	74	75	287	592	1166
NB s/o Willow St	68.9	69.9	97	237	501
SB s/o PCH on ramp	74	75	287	591	1165
SB s/o PCH	72.9	73.9	225	481	962
NB n/o PCH	72.2	73.2	196	428	864
SB between loop Off and On ramp at PCH	72.8	73.8	224	479	960
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
s/o Henry Ford Ave	74.2	75.2	296	607	1194
TERMINAL WAY					
w/o Ferry St	72.4	73.4	203	442	890
w/o Eaire St	72.3	73.3	199	434	875
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	69.8	70.8	118	278	581
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	68.9	69.9	98	238	504
s/o Navy Way	69	70	99	241	510
s/o Navy Way	70.5	71.5	137	316	653
W 9TH ST					
e/o Caspian Ave	63.1	64.1	29	85	195
s/o Anaheim St	66.5	67.5	60	157	342
e/o Santa Fe Ave	64.7	65.7	41	114	256
w/o Caspian Ave	63.1	64.1	29	86	196
n/o Pier B St	61.6	62.6	21	65	153
w/o Santa Fe Ave	67.5	68.5	73	187	403
s/o Pier B St	71.4	72.4	164	369	754
n/o Pier B St	66.8	67.8	63	164	356
W ANAHEIM ST					
e/o Harbor Ave	66.8	67.8	63	164	356
e/o Santa Fe Ave	71.4	72.4	165	371	757
w/o Harbor Ave	69.3	70.3	107	257	540
w/o Seabright Ave	70.2	71.2	129	301	625
w/o E I St	68.2	69.2	85	211	450
w/o Figueroa PL	68.4	69.4	88	218	464
between Wilmington and Neptune Ave	63.4	64.4	31	90	206
between Frigate Ave and Wilmington Blvd	63.6	64.6	32	93	212
e/o Neptune	63.2	64.2	30	87	199
between Neptune Ave and Fries Ave	63.3	64.3	30	88	201
w/o Frigate Ave	63.5	64.5	32	91	208
e/o Figueroa PL	68.4	69.4	89	219	467
between Seabright Ave and Santa Fe Ave	70.1	71.1	125	292	608
between Fries Ave and Avalon Blvd	63.8	64.8	34	97	219
between I-710 SB and NB Ramps	66.9	67.9	64	167	362

W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71	72	151	344	707
between Hawaiian Ave and Wilmington Blvd	70.8	71.8	146	334	688
between Neptune Ave and Fries Ave	70	71	124	291	606
between Figueroa St and Mar Vista Ave	70.7	71.7	143	328	677
between Fries Ave and Avalon Blvd	71.5	72.5	167	375	765
between Mar Vista Ave and Hawaiian Ave	70.8	71.8	146	334	688
W I ST					
n/o Anaheim St	63.1	64.1	29	85	196
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	67.1	68.1	67	172	373
w/o I-110 SB off ramp	67.4	68.4	71	181	392
between I-710 NB and SB ramps	71.8	72.8	180	399	811
e/o San Gabriel Ave	73.4	74.4	250	527	1047
between San Gabriel Ave and Santa Fe Ave	73.2	74.2	242	512	1020
e/o Wilmington Blvd	67.8	68.8	78	196	420
e/o Figueroa St	67.6	68.6	74	189	407
between Neptune Ave and Avalon Blvd	68.3	69.3	86	214	456
between Terminal Island Fwy SB and NB ra	71.5	72.5	170	379	774
e/o Santa Fe Ave	73.6	74.6	261	547	1083
e/o Harbor Ave	71.7	72.7	175	389	791
w/o Termial Island Fwy	70.2	71.2	129	301	625
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	70.4	71.4	135	312	647
between Harbor Scenic Dr and Pier J Way	71.3	72.3	161	363	743
W SEPULVEDA BLVD					
e/o SB I-110 off Ramp	67.7	68.7	76	192	413
w/o NB I-110 off ramp	68.4	69.4	88	217	462
w/o Figueroa St	68	69	80	202	432
e/o Figueroa St	65.7	66.7	50	136	300
between SB and NB I-110 Ramps	67.8	68.8	77	195	419
W WATER ST					
between Fries Ave and Avalon Blvd	64.4	65.4	38	108	242
W WILLOW ST					
between NB and SB Terminal Island Fwy	69.9	70.9	121	285	595
between Terminal Island Fwy and Santa Fe	66.7	67.7	61	160	350
between Santa Fe Ave and Easy Ave	66.7	67.7	62	163	354
e/o Easy Ave	68.7	69.7	93	228	484
w/o SB I-710 ramps	65.9	66.9	53	141	310
w/o NB I-710 on ramp	66.6	67.6	60	158	345

3 Applicable Regulations

3.1 City of Los Angeles

Noise

Los Angeles General Plan Noise Element. The City of Los Angeles General Plan Noise Element establishes a set of community noise exposure/land use compatibility guidelines (summarized in Table F1-10) that characterizes the exterior noise level as "normally acceptable," "conditionally acceptable," "normally unacceptable," or "clearly unacceptable," depending on each particular land use's sensitivity to community noise.

Los Angeles Municipal Code. The City of Los Angeles Noise Ordinance is provided in Chapter 11 of the Los Angeles Municipal Code (LAMC). Section 111.02 of the LAMC provides procedures and criteria for the measurement of the sound level of "offending" noise sources. Specifically, the procedures provide for a penalty of 5 dBA for steady high-pitched noise or repeated impulsive noises. Conversely, the procedures provide a credit of 5 dBA for noise occurring less than 15 minutes in a period of 60 consecutive minutes during the day, as short-term noise events are typically less of a nuisance than sustained noise levels. A noise event duration of 15 minutes during a one-hour period would be equivalent to L_{25}, while a noise event duration of 5 minutes during a one-hour period would be equivalent to L_8.

Table F1-10. City of Los Angeles Noise Compatibility Guidelines

Land Use	*Community Noise Exposure CNEL, dBA*			
	Normally Acceptable	*Conditionally Acceptable*	*Normally UnaccepTable*	*Clearly UnaccepTable*
Single Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	Above 70
Multi-Family Homes	50 - 65	60 - 70	70 - 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	Above 80
Transient Lodging — Motels, Hotels	50 – 65	60 - 70	70 - 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	-	50 - 70	-	Above 65
Sports Arena, Outdoor Spectator Sports	-	50 - 75	-	Above 70
Playgrounds, Neighborhood Parks	50 - 70	-	67 - 75	Above 72
Golf Courses, Riding Stables, Water, Recreation, Cemeteries	50 - 75	-	70 - 80	Above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	Above 75	-
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	Above 75	-

Source: City of Los Angeles CEQA Thresholds Guide, 2006.

The LAMC indicates that in cases where the actual measured ambient conditions are not known or are less than 50 dBA, the presumed daytime (7:00 A.M. to 10:00 P.M.) and nighttime (10:00 P.M. to 7:00 A.M.) minimum ambient noise levels defined in Section 111.02 of the LAMC should be used. For residential-zoned areas, the presumed ambient noise level is 50 dBA during the daytime and 40 dBA during the nighttime.

Section 112.05 of the LAMC sets a maximum noise level for powered equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard is only required where "technically feasible." In accordance with the City of Los Angeles Noise Ordinances, "technically feasible" means that the established noise limitations cannot be complied with at a project site, despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques employed during the operation of equipment. Section 41.40 of the LAMC prohibits construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday, and at any time on Sunday. In general, the City of Los Angeles Department of Building and Safety enforces noise ordinance provisions relative to equipment and the Los Angeles Police Department enforces provisions relative to noise generated by people.

Vibration

There are no adopted City of Los Angeles policies or standards for ground-borne vibration.

3.2 City of Long Beach

Noise

Long Beach Municipal Code. Chapter 8.80 of the Long Beach Municipal Code controls unnecessary and excessive noise and vibration in the City of Long Beach. Section 8.80.150 of the Long Beach Municipal Code outlines acceptable exterior noise levels by land use that applies to operations noise. As listed in Table F1-11, daytime noise levels at residential areas are not to exceed 50 dBA. In addition, it is unlawful for any person to create any noise which causes the noise level when measured on residential property to exceed:

- The noise standard for that land use district as shown in Table F1-9 for a cumulative period of more than thirty minutes in any hour;
- The noise standard plus five dBA for more than 15 minutes in any hour;
- The noise standard plus ten dBA for a cumulative period of more than five minutes in any hour;
- The noise standard plus 15 dBA for a cumulative period of more than one minute in any hour; or
- The noise standard plus 20 dBA or the maximum measured ambient, for any period of time.

If the measured ambient level exceeds that permissible, the allowable noise exposure standard shall be increased in 5 dBA increments in each category as appropriate to encompass or reflect the ambient noise level. In addition, Section 8.80.160 of the

Long Beach Municipal Code states that, in the event an alleged offensive noise contains a steady audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering or riveting or contains music or speech conveying informational content, the standard limits should be reduced by 5 dBA.

Table F1-11. City of Long Beach Exterior Noise Limits by Receiving Land Use

Receiving Land Use District	*Time Period*	*Noise Level, dBA*	*Steady Audible Tone, dBA*
District One – Predominantly residential with other land use types also present	Night: 10 PM – 7 AM	45	40
	Day: 7 AM – 10 PM	50	45
District Two – Predominantly commercial with other land use types also present	Night: 10 PM – 7 AM	55	50
	Day: 7 AM – 10 PM	60	55
District Three – predominantly industrial with other land use types also present	Anytime	65	60
District Four – predominantly industrial with other land use types also present	Anytime	70	65
District Five – airports, freeways, and waterways regulated by other agencies	Regulated by other Agencies and laws	-	-

SOURCE: Long Beach Municipal Code, Section 8.80.160.

The Long Beach Municipal Code specifies interior noise standards for various land uses; as Table F1-12 shows, the interior daytime noise level for residences should not exceed 45 dBA for a cumulative period of more than five minutes in any hour. The interior noise standard is increased by 5 dBA for noise that occurs for a cumulative period of more than one minute in any hour and 10 dBA for the maximum measured ambient, for any period of time. If the measured ambient level exceeds that permissible for five and one minute durations, the allowable noise exposure standard shall be increased in 5 dBA increments in each category as appropriate to encompass or reflect the ambient noise level. If the ambient noise level exceeds the maximum standard, then the standard shall be increased to reflect the ambient noise level.

Table F1-12. City of Long Beach Interior Noise Limits

Receiving Land Use District	*Type of Land Use*	*Time Interval*	*Allowable Interior Noise Level, dBA*
All	Residential	10:00 PM – 7:00 AM	35
		7:00 AM – 10:00 PM	45
All	School	7:00 AM – 10:00 PM While school is in session	45
Hospitals, designated quiet zones, and noise sensitive zones	-	Anytime	40

SOURCE: Long Beach Municipal Code, Section 8.80.170.

Further, the City of Long Beach Municipal Code Section 8.80.202 limits the use of construction tools and equipment on weekends and holidays.

Vibration

Section 8.80.200.G of the Long Beach Municipal Code limits operational ground-borne vibration:

> *Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at one hundred fifty feet (forty-six meters) from the source if on a public space or public right-of-way. For the purposes of this subsection, "vibration perception threshold" means the minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such directed means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be .001 g's in the frequency range 0-30 hertz and .003 g's in the frequency range between thirty and one hundred hertz.*

3.3 City of Carson

Noise

Carson General Plan. Chapter 3.2 of the General Plan Noise Element identifies land use compatible noise levels. In general, for residential land uses, an exterior CNEL between 50 to 60 dB is considered to be normally acceptable. Chapter 3.4 of the Noise Element further defines sensitive receptors and specifies a maximum exterior noise exposure of 65 dB CNEL for residences, public and private school/preschool classrooms, churches, hospitals, and elderly care facilities.

Vibration

The City of Carson does not specify vibration limits for transportation sources within the City boundaries.

3.4 State Policies

Noise

The California Department of Health Services establishes noise compatibility guidelines for various land uses. The guidelines indicate that an exterior noise level up to 65 dBA CNEL is “normally acceptable” for multi-family residential uses, without special noise insulation requirements. An exterior noise level up to 60 dBA CNEL is "normally acceptable" for low-density residential uses, without special noise insulation requirements. A noise level between 60 CNEL and 70 CNEL is considered "conditionally acceptable" for low-density residential uses, while a noise level of 75 dBA CNEL or more is identified as "clearly unacceptable" for all residential uses.

In addition, the California Department of Transportation (Caltrans) adopts the Federal Highway Administrations Noise Abatement Criteria (NAC) for Type 1 projects. The NAC is discussed in the following section.

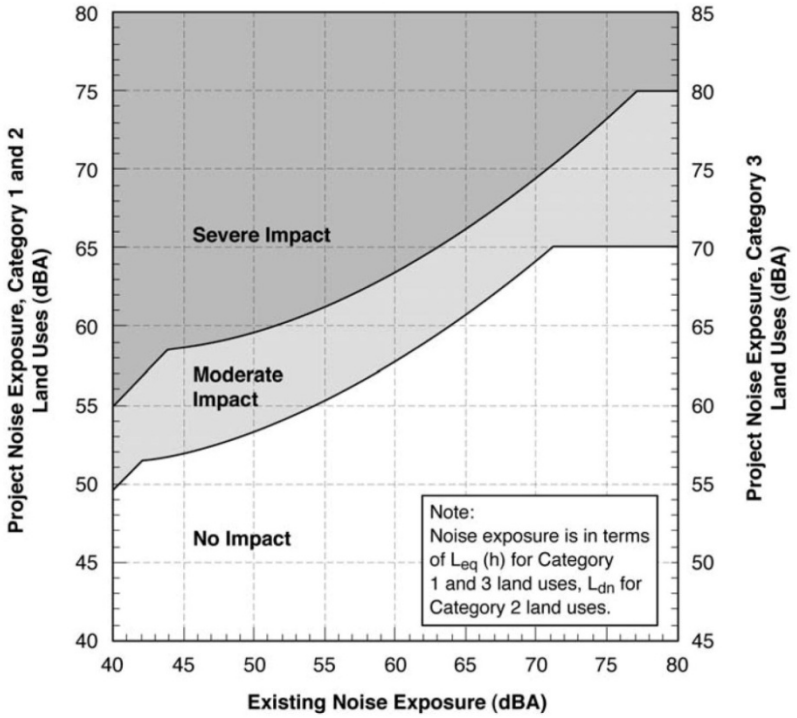
Vibration

There are no adopted state policies or standards for ground-borne vibration.

3.5 Federal Policies

Noise

Federal Rail Administration (FRA). The FRA relies upon the Federal Transit Administration (FTA) noise impact assessment procedures for assessing improvements to conventional passenger rail lines and stationary rail facilities and horn noise assessment. The FTA noise guidelines are illustrated in Figure F1-6. There are three designated land use categories under the FTA guidelines (Table F1-13).



Source: FTA Transit Noise and Vibration Impact Assessment, May 2006

Figure F1-6. FTA Noise Impact Criteria for Transit Projects

Table F1-13. Land Use Categories and Metrics for Transit Noise Impact Criteria

Land Use Category	*Noise Metric (dBA)*	*Description of Land Use Category*
1	Outdoor L_{eq} (h) *	Tracts of land where quiet are an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use. Also included are recording studios and concert halls.
2	Outdoor Ldn	Residences and buildings where people normally sleep. This category includes homes, hospitals and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
3	Outdoor L_{eq} (h) *	Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation and concentration on reading material. Places for meditation or study associated with cemeteries, monuments, museums, campgrounds and recreational facilities can also be considered to be in this category. Certain historical sites and parks are also included.
* L_{eq} (h) for the noisiest hour of transit-related activity during hours of noise sensitivity.		

Source: FTA Transit Noise and Vibration Impact Assessment, May 2006

FTA guidelines specify that noise impacts occur when predicted noise levels caused by the project increase the overall noise by a specific amount, which ranges between 1 and 10 dBA, depending on the land use and existing noise level. For example, for a project located in a residential area with an average L_{dn} of 50 dBA, the project can generate up to 54 dBA L_{dn} without causing any impact and up to 59 dBA L_{dn} without causing a severe impact. For daytime noise sensitive areas, impacts are determined by peak hour L_{eq}, so if the average L_{eq} is 50 dBA, the project can generate up to 59 dBA L_{eq} without causing any impact and up to 64 dBA L_{eq} without causing a severe impact. Daytime noise sensitive uses include parks, school, libraries and noise sensitive commercial uses.

FRA also adopts the FTA noise impact criteria for rail horn noise and has developed additional guidance on assessment of rail horn noise. The code of federal regulations mandates that audible warning devices shall be activated in accordance with railroad rules regarding the approach to both public and private roadway grade crossings. Standard practice is to begin sounding the horn 0.25 miles before the crossing in a long-long-short-long pattern and to continue sounding until the train reaches the crossing. The FRA has developed a horn-noise assessment model to determine the distance around each grade crossing where the noise exposure from train horns would exceed the guidelines.

Federal Highway Administration (FHWA). The FHWA's noise abatement criteria (NAC) define traffic noise impacts for Type 1 projects. Under the FHWA criteria, an impact occurs when predicted $L_{eq(h)}$ noise levels approach or exceed the NAC, or substantially exceed existing noise levels (23 CFR 772). These criteria are used to assess traffic noise on state and federal highways. The FHWA NAC specifies exterior $L_{eq(h)}$ noise levels for various land activity categories. For residences, parks, schools, churches, and similar areas, the noise criterion is 67 dBA. For other developed lands, the noise criterion is 72 dBA. For projects that add roadway capacity or substantially change the roadway alignment (FHWA Type 1 projects), the NAC defines levels that if approached (within 1 dBA) or exceeded constitute a noise impact. Table F1-14 lists the FHWA Noise Abatement Criteria (NAC) for various land use categories.

Table F1-14. Noise Abatement Criteria (NAC)

Activity Category	*Noise Abatement Criteria Leq (dBA)*	*Description of Activity Category*
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: 23 CFR 772, 1997

Vibration

Federal Rail Administration. The FRA relies upon the Federal Transit Administration (FTA) vibration impact assessment procedures for evaluating and assessing rail projects. The FTA criteria for environmental impact from ground-borne vibration are based on the maximum root-mean-square (rms) vibration levels for repeated events of the same source. The guidelines presented in Table F1-15 account for variation in project types as well as the frequency of events, which differ widely among transit projects. The limits are specified for the three land-use categories defined below:

- Vibration Category 1 - High Sensitivity: Included in Category 1 are buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance. Typical land uses covered by Category 1 are: vibration-sensitive research and manufacturing, hospitals with vibration-sensitive equipment, and university research operations. The degree of sensitivity to vibration will depend on the specific equipment that will be affected by the vibration. Equipment such as electron microscopes and high resolution lithographic equipment can be very sensitive to vibration, and even normal optical microscopes will sometimes be difficult to use when vibration is well below the human annoyance level. Manufacturing of computer chips is an example of a vibration-sensitive process. The vibration limits for Vibration Category 1 are based on acceptable vibration for moderately vibration-sensitive equipment such as optical microscopes and electron microscopes with vibration isolation systems.

- Vibration Category 2 - Residential: This category covers all residential land uses and any buildings where people sleep, such as hotels and hospitals. No differentiation is made between different types of residential areas. This is primarily because ground-borne vibration is experienced indoors and building occupants have practically no means to reduce their exposure. Even in a noisy urban area, the bedrooms often will be quiet in buildings that have effective noise insulation and tightly closed windows. Moreover, street traffic often abates at night when rail operations continue. Hence, an occupant of a bedroom in a noisy urban area is likely to be just as exposed to ground-borne vibration as someone in a quiet suburban area.

- Vibration Category 3 - Institutional: Vibration Category 3 includes schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference. Although it is generally appropriate to include office buildings in this category, it is not appropriate to include all buildings that have any office space. For example, most industrial buildings have office space, but it is not intended that buildings primarily for industrial use be included in this category.

Table F1-15. FTA Ground-borne Vibration (GBV) Impact Criteria for General Assessment

Land Use Category	*GBV Impact Levels (VdB re 1 micro-inch/sec)*		
	Frequent Events [1]	*Occasional Events* [2]	*Infrequent Events* [3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB [4]	65 VdB [4]	65 VdB [4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Notes:

1. "Frequency Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter truck lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

Source: FTA Transit Noise and Vibration Impact Assessment, May 2006

3.6 Sleep Disturbance and Speech Intelligibility

Increased community reaction to rail noise in the vicinity of the Port of Los Angeles has prompted the need for a discussion of the potential effects of sleep disturbance and speech intelligibility on the community from the SCIG Project.

Sleep Disturbance

The effect of noise on sleep is a recognized concern when addressing the impacts of noise on people. Historical studies of sleep disturbance were focused mainly in laboratories, using various indicators of response (electroencephalographic recordings, verbal response, button push, etc). Field studies also were conducted, in which subjects were exposed to noise in their own homes, using real or simulated transportation noise [Lukas, 1975; Griefahn and Muzet, 1978; and Pearsons et al., 1989].

Based on a 1989 literature review by Pearsons for the U.S. Air Force, no specific adverse health effects have been clearly associated with sleep disturbance, characterized either by awakening or by sleep-state changes [Pearsons, 1989].

Nevertheless, sleep disturbance is deemed undesirable, and may be considered an impact caused by noise exposure.

Three recent studies have added considerably to the stock of data on sleep disturbance caused by aviation noise. The first of these was conducted in the United Kingdom in 1992; the second in the U.S. near Castle Air Force Base and near Los Angeles International Airport in California in 1992; and the most recent study was conducted in communities near Stapleton International Airport (DEN) and near Denver International Airport (DIA) in Colorado, both before and after the opening of DIA in 1995. The Federal Interagency Committee on Aircraft Noise (FICAN) evaluated the data and conclusions of the three field studies and released the FICAN 1997 sleep disturbance curve. The FICAN 1997 curve shown in Figure F1-7 represents the upper limit of the observed field data, and should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened", or the "maximum % awakened" for a given residential population. Finally, a report in the Journal of Occupational Health cited research showing that sleep disturbance was more prevalent in urban populations exposed to traffic noise above 65 Leq. This exposure to traffic noise has been linked to insomnia, poorer sleep quality, and tiredness (Kawada, 2011).

Speech Interference

One of the primary effects of continuous noise or sustained noise events are its tendency to drown out or "mask" speech, making it difficult or impossible to carry on a normal conversation without interruption. Figure F1-8 below presents typical distances between talker and listener for satisfactory conversations in the presence of different steady A-weighted background noise levels. As shown in the figure, satisfactory conversation does not always require hearing every word; 95% intelligibility is acceptable for many conversations. This is because a few unheard words can be inferred when they occur in a familiar context.

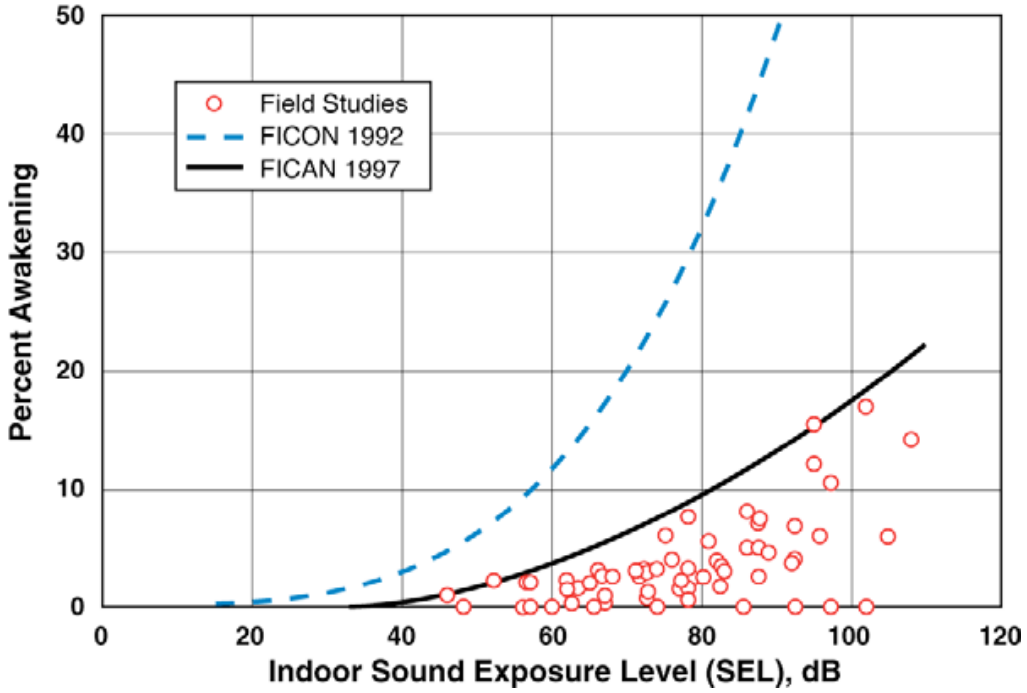
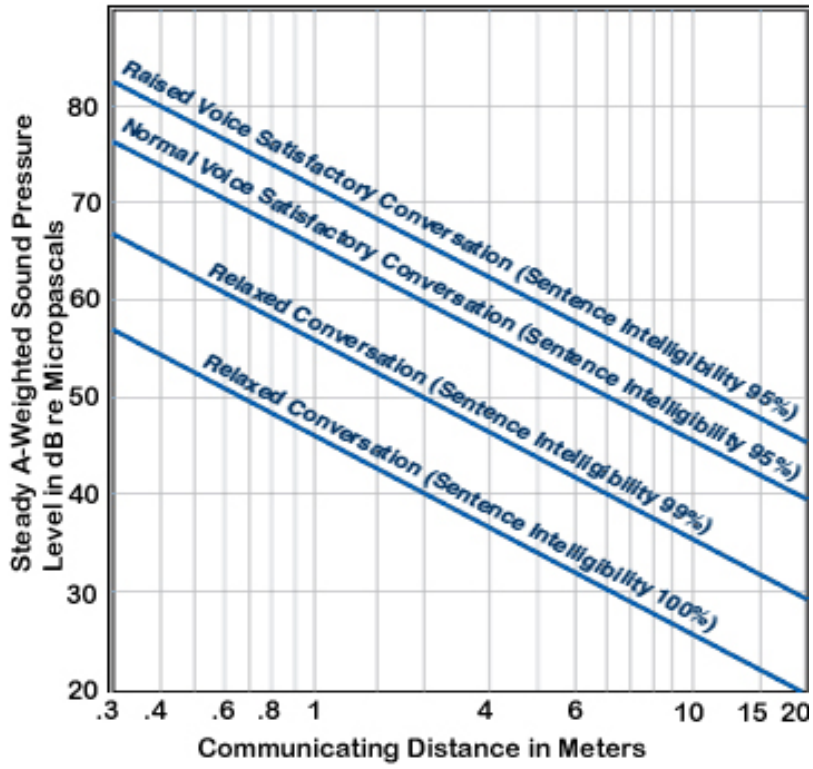


Figure F1-7. FICAN 1997 Recommended Sleep Disturbance Dose-Response Relationship



Source: US EPA, *Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety*, March 1974.

Figure F1-8. USEPA Speech Intelligibility Curve

4 Predictive Noise Analysis

4.1 Methodology

Noise

To evaluate noise from construction activities, the methodology outlined by the Construction Engineering Research Laboratory (CERL) was used. The CERL methodology considers the type and number of construction equipment used, individual equipment noise emissions, and time-usage factors for each phase of construction. The construction sites are into divided into zones of activity, and sound levels produced in each zone are acoustically summed to compute the construction noise levels.

The CNEL generated by existing and future traffic on the roadways that serve the proposed Project site has been estimated using the FHWA traffic noise prediction model and forecasted traffic data from the Transportation Chapter. Ambient noise levels (existing and future projected) associated with Project operations are expressed in CNEL.

The distances to noise contours presented in the tables are representative of "soft site" conditions without any barrier attenuation. Soft-site and hard-site conditions are

parameters in the FHWA Highway Noise Model to account for how sound drops off as it radiates away from the roadway. For hard-site conditions, the reduction in sound over distance is solely due to the spreading of the sound energy over larger and larger area. As sound radiates from a source its energy is dispersed over a larger and larger area resulting in less energy at any one point the further it is from the source. This is the minimum rate that sound drops off over distance. Soft-site conditions include an additional effect, the fact that the sound typically travels along the ground and the ground absorbs some of the energy increasing the drop off rate from 3 dB per doubling of distance to 4.5 dB per doubling distance.

In addition to the CNEL noise analysis described above, the analysis of potential noise associated with the proposed Project's mechanical equipment, truck deliveries, cranes, yard tractors, and parking facility operations were analyzed using the Cadna noise model and equipment data from the proposed Project description. The CNEL generated by future rail operations was calculated by applying existing operational data to the FRA's computational procedures for railroad operations, DOT-T-95-16.

Sleep disturbance was evaluated for two cases, with windows closed and with windows open. With windows closed, a 20 dB noise reduction was applied to exterior single event noise to estimate interior noise levels. A conservative 12 dB exterior to interior noise reduction was applied to assess interior SELs with windows open. Interior SELs were then analyzed in conjunction with the FICAN Sleep Disturbance Curve (Fig. F.7) to predict the likelihood of single event awakenings.

For classroom speech interference, a separation distance between a teacher and back row students was assumed to be nominally 20 feet. Students situated closer than 20 feet from the teacher would experience greater speech intelligibility

Atmospheric effects were determined to have minimal influence on the Project noise levels for the nearest receptors bordering the Project site. This is due to the fact that meteorological effects are only significant over large propagation distances and are not exhibited at receptors close to the noise sources.

The effects of intervening topography, walls, earthen berms, buildings, and topographic cuts and fills have been considered in the construction and operations noise analysis for the Project. The location of these barriers and their overall effect on the construction and operations noise analyses are relative to the location of each barrier and its geometrics relative to the project site and receiver locations. Refer to Section 11 for a discussion of the methodology for modeling natural and man-made barriers and the noise model input and output data.

4.2 Predicted Noise Levels – City of Los Angeles

Construction of the proposed Project would occur over approximately 24 months in the following areas:

1. The railyard area including the north lead tracks and railroad bridge over Sepulveda Blvd;
2. Pacific Coast Highway (PCH) grade separation and interchange;
3. The south lead tracks area along the Long Beach Lead and Alameda Corridor, including the Dominguez Channel Bridge.
   Alternate business locations.

Construction would include demolition of existing structures; earthwork including excavating, repositioning, and compacting; drainage and utility construction/relocation; fine grading and sub-grade preparation; paving; construction of new buildings; track work and signal installation; assembly of the loading cranes; modifications to rail and road bridges; landscaping; and improvements to the Southern California Edison access road. Heavy construction equipment (e.g., excavators, graders, rollers, track-laying machines, cement mixers, cranes, and haul trucks) would be used in all parts of the proposed Project site, and some pile driving would likely occur, particularly for the new bridge abutments. Construction of all elements would occur essentially simultaneously. (See RDEIR Section 2.4.3 for additional details on Construction Activities and Phasing).

Construction Noise Levels

Construction noise would be experienced by workers at industrial and commercial facilities near the proposed Project site in the City of Los Angeles. However, no noise-sensitive uses were identified within the portion of the City of Los Angeles near the proposed Project site; noise-sensitive uses within Los Angeles occur along the designated truck routes, which would be used during operations and not for construction trips. Nighttime construction would be very limited and would be confined to the PCH grade separation. Haul routes to and from the site would be limited to PCH to the west and east. Because the number of truck movements would be very limited, little to no increase would be expected with the overall CNEL from traffic on PCH.

No on-site construction activities would occur near noise-sensitive uses in the City of Los Angeles between the hours of 9:00 PM and 7:00 AM Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at any time on Sunday. Nighttime construction noise from the PCH grade separation would be attenuated due to the distance to the receptors (4,000 ft), barrier effects of intervening topography and the high ambient background noise. Because the number of truck movements would be very limited, little to no increase would be expected with the overall CNEL from traffic on PCH. Further, single event noise levels would be expected to be similar to what is generated by existing heavy trucks on PCH. Therefore, nighttime construction noise would be considered less than significant.

On-Site Operations

Sources of on-site operational noise at the SCIG and alternate business locations facilities would include truck activity, maintenance, train activity, and container loading and unloading operations. Operational noise levels for on-site activities are summarized in Table F1-16. Existing operations that would be relocated by the proposed Project would include less intensive trucking, warehousing, transloading and yard goats activities. Mechanical equipment associated with these operations includes heavy trucks, trailers, forklifts, yard goats, and maintenance equipment.

Trucks and hostlers would generate noise from their engines and horns. Truck activity would consist of truck traffic arriving and departing from the SCIG and alternate business locations facilities, and moving about within the facilities. An estimated 5,542 truck trips and 4,167 containers would be processed through the SCIG facility on a daily basis. Hostlers would transport containers between storage areas and the loading/unloading tracks. Crane operations would include the use of

RMG cranes on the strip tracks for loading and unloading railcars and chassis, and managing container stacking. The cranes, being electrically powered, would generate little noise, but container stacking would generate noise from impacts with other containers, truck trailers, or the ground. The maintenance activities would consist of hostler and crane maintenance, which would be supported by an air compressor building in the northwest portion of the site.

Train operations would account for the majority of operational noise at the proposed Project site. Railroad noise would include locomotive diesel engines, horns, and air brake systems; wheel-on-rail clicking and squealing; and concussion from railcars banging together during switching operations. Eight inbound trains and eight outbound trains would be expected to pass through the facility each day. Each train would consist of three or four diesel-electric locomotives with attached railcars, with a total length of approximately 8,000 feet. Locomotives would operate from the junction with the Alameda Corridor through the railyard and northward up the north lead tracks.

Locomotive noise would be reduced by normal operating procedures, which call for shutting down all but one of the locomotives as the train arrives or until it is ready to depart and accomplishing all switching activities with a single locomotive. A non audible warning system would be used on site instead of train horns, eliminating the potential for on-site train horn effects.

Table F1-16. Summary of Predicted Noise Levels From On-Site Sources

On-Site Source	*Predicted Noise Level at 100 ft, dBA*
Train Horn (off site)	107
Trains	70 - 95
Air Compressor Building	68
RMG cranes	70
Maintenance Facilities	72
Parking Lots	67
Hostler w/ Trailer	69
Hostlers	59
Heavy Trucks	66
Container Impact	70

Rail Corridor Noise

The proposed eight roundtrip trains to and from the SCIG facility each day would result in increased train traffic on local corridors compared to baseline conditions. These corridors include the Alameda Corridor, South Lead Tracks and San Pedro Branch Line. Increased rail activity from the SCIG facility on the Alameda Corridor is analyzed considering the volume of train trips on the Alameda Corridor in the 2010 baseline year and the project-generated train volume in the 2023 future year (eight inbound and eight outbound trains per day). The baseline data for 2010 provided by ACTA cites an average volume of 39 trains per day on the Alameda Corridor (ACTA communication, 2011). Considering the Project-generated trains, the increase in

CNEL from the Project's trains on the Alameda Corridor would be 1.5 dB at the nearest residential receptors R28, R29 and R32.

Train horn sounding can produce maximum sound levels as high as 107 dBA at a distance of 100 ft and 90 dBA at a distance of 500 feet. The project would generate eight daily inbound and outbound trains with approximately 16 train horn soundings per day occurring near the intersection of the Alameda Corridor and Pacific Coast Highway. Train horn soundings from the project are not expected to occur more than once in any one hour period. When compared to the number of existing train operations, horn soundings and ambient background noise, future locomotive horn noise from SCIG train traffic, although still discernible, would not be expected to result in a CNEL increase greater than 3 dB at the nearest residential receptors R28, R29, and R32.

Future rail movements along the San Pedro Branch line would include diesel engine noise, train horns, and railcar noises, as described above. According to BNSF, train horn soundings are not expected to occur on the San Pedro Branch line due to the Project's design features. Future noise levels from the Project's rail movements on the San Pedro Branch line from all these sources are summarized in Table F1-17.

Table F1-17. Summary of SCIG Operational Train Noise Levels for San Pedro Branch Line

Receptor Number[1]	*Measured Ambient Noise Level, L50, dBA* [2]	*Measured Ambient CNEL, dBA*	*Predicted Future CNEL for San Pedro Branch Line, dBA*
R1	Day: 45.2 - 51.6 Night: 37.7 - 46.3	54.7	55.1
R2	Day: 58.6 - 60.2 Night: 46.1 - 57.4	64.0	48.3
R3	Day: 56.3 - 64.1	66.6	56.0
R4	Day: 62.4 – 64.3	--	57.3
R5	Day: 52.6 - 58.1	62.8	48.8
R6	Day: 61.5 – 65.3	69.9	57.1
R7	Day: 61.5 – 65.3	69.9	56.6
R7A	Day: 59.2 – 63.2 Night: 51.1 - 58.6	67.3	53.9
R30	Day: 52.0 – 64.2	61.2	52.9
R31	Day: 48.3 – 58.0	59.6	50.3

Note: *1* For receptor locations refer to Figure F1-3 (where N is equivalent to R).

2 Refer to Table F1-4, Summary of Ambient Noise Measurement Data.

Existing Plus Project Traffic Noise Levels

Table F1-18 shows the roadway traffic noise levels once the proposed Project is in full operation. Portions of the following roadways in the City of Los Angeles include noise-sensitive land uses that would be expected to experience future traffic noise levels above 70 CNEL: Alameda Street, E. Anaheim St., E. Harry Bridges

Boulevard, E. Sepulveda Boulevard, John S. Gibson Boulevard, and W. Harry Bridges Boulevard. Traffic noise levels above 70 CNEL are considered incompatible with noise guidelines.

Table F1-19 shows the predicted noise level increase over existing levels; the Project's traffic noise contribution. Roadways in Los Angeles with noise-sensitive land uses would not experience a Project increase in traffic noise level exceeding 1 dB. The majority of roadways within the City would experience a traffic noise decrease as a result of the Project.

Table F1-20 shows the predicted future noise level increase over existing levels and the Project's contribution upon build out (i.e., in 2023). Portions of the following roadways in Los Angeles with noise-sensitive land uses would experience a cumulative noise level increase over existing noise levels of 3 dBA or greater: Navy Way, New Dock Street, and S. Fries Avenue.

Table F1-18. Calculated Existing Plus Project Roadway Traffic Noise Levels

ROADWAY SEGMENT	*Leq @ Rec.*	*CNEL @ Rec.*	*DISTANCE TO CNEL CONTOURS(FT) 70dBA*	*65dBA*	*60dBA*
1ST ST					
e/o East RD	72.2	73.2	195	426	861
ACCESS RD					
e/o Ferry St	61.5	62.5	21	64	150
ALAMEDA ST	69.3	70.3	107	257	541
n/o Anaheim St	72.2	73.2	196	428	864
w/o Eubank Ave	71.6	72.6	171	382	778
s/o PCH	73.1	74.1	237	502	1002
s/o Anaheim St					
E 223RD AVE					
w/o I-405 Off ramps	69.9	70.9	120	283	590
E ANAHEIM ST					
between Avalon Blvd and Broad Ave	64.6	65.6	40	112	251
between Eubank Ave and Sanford St	64.9	65.9	42	117	261
between Sanford Ave and Sanford St	65	66	43	120	267
between Anaheim and Henry Ford	71.3	72.3	161	362	741
e/o Henry Ford Ave	72.6	73.6	211	455	916
w/o E I St	71.8	72.8	181	401	814
e/o Sanford Ave	67.9	68.9	80	201	431
w/o Anaheim Way	72.6	73.6	211	455	916
between Henry Ford Ave and Terminal Isla	72.6	73.6	211	455	916
E HARRY BRIDGES BLVD					
e/o Avalon Blvd	70.8	71.8	146	334	687
E I ST					
between Terminal Island Fwy and Anaheim	71.6	72.6	171	382	778

E OPP ST					
w/o Farragut Ave	68.2	69.2	85	211	450
E SEPULVEDA BLVD					
e/o Alameda St	69.7	70.7	116	274	574
w/o Dolores St	68.3	69.3	86	213	455
w/o Wilmington Ave	69.1	70.1	101	245	517
e/o Wilmington Ave	67.9	68.9	79	199	427
e/o Dolores St	67.9	68.9	79	198	425
w/o Avalon Blvd	67.8	68.8	78	197	422
EAST RD					
n/o 1st St	67.4	68.4	71	181	392
s/o 1st St	69.4	70.4	108	258	542
FARRAGUT AVE					
Between Terminal Island Fwy SB ramps and	69.9	70.9	121	285	593
s/o E OPP St	68.2	69.2	85	211	450
FERRY ST					
between Seaside Ave and Access Rd	66.1	67.1	54	145	319
between Terminal Way and Pitchard St	68.8	69.8	96	234	496
FIGUEROA ST					
n/o Anaheim St	64.3	65.3	38	106	239
n/o PCH	64.7	65.7	40	113	253
HARBOR FWY					
n/o PCH off Ramp	81.8	82.8	1469	2355	4165
s/o Sepulveda Blvd	81.7	82.7	1416	2284	4048
n/o Sepulveda Blvd	81.9	82.9	1478	2367	4185
n/o 223rd St	82.1	83.1	1555	2472	4356
n/o 220th St	82.3	83.3	1607	2542	4468
n/o Carson St	82.5	83.5	1689	2651	4645
n/o Redondo Beach Blvd	82.7	83.7	1765	2752	4807
between 135 th St and Rosecrans Ave	82.6	83.6	1741	2720	4756
n/o 135th St	82.4	83.4	1655	2606	4572
n/o Alondra	82.6	83.6	1716	2686	4702
between Del Amo Blvd and Torrance Blv	82.4	83.4	1659	2611	4580
between 168th and Alondra	82.8	83.8	1790	2785	4861
n/o Del Amo Blvd	82.7	83.7	1775	2765	4829
n/o I-405	81.8	82.8	1454	2336	4133
s/o I-405	81.8	82.8	1453	2333	4129
s/o 182nd St	82.2	83.2	1588	2516	4427
between Artesia Blvd and 168th	82.1	83.1	1556	2474	4358
s/o SR-91	82.2	83.2	1570	2492	4388
s/o PCH off Ramp	81.4	82.4	1344	2185	3886

n/o El Segundo Blvd	82.5	83.5	1686	2647	4638
s/o El Segundo Blvd	82.4	83.4	1655	2605	4571
n/o Anaheim St	81.7	82.7	1415	2282	4046
s/o 120th St	82.4	83.4	1659	2610	4579
n/o 120th St	81.9	82.9	1473	2361	4175
n/o I-105	82.4	83.4	1645	2592	4550
n/o 108th St	83	84	1877	2898	5043
s/o 223rd St	82.2	83.2	1578	2502	4404
s/o 190th St	82.1	83.1	1538	2448	4316
HARBOR PLZ					
between Pier F Ave and Pico Ave	67.2	68.2	68	176	380
HARBOR SCENIC DR	70	71	123	289	602
w/o Goldenshore St	70.5	71.5	136	315	652
s/o Shoreline Dr	71.1	72.1	156	354	726
n/o Shoreline Dr					
HARBOR SCENIC WAY					
e/o Queens Hwy	66.7	67.7	62	162	354
e/o Port Access Rd	67.4	68.4	72	183	394
w/o Port Access Rd	67.4	68.4	72	183	394
JOHN S GIBSON BLVD					
n/o I-110 Ramps	69.2	70.2	105	253	532
LONG BEACH FWY					
n/o Imperial Hwy	83	84	1876	2897	5041
s/o Imperial Hwy	83.3	84.3	2015	3078	5331
n/o I-105	82.8	83.8	1800	2797	4880
s/o I-105	82.7	83.7	1758	2742	4791
n/o Rosecrans Ave	82.7	83.7	1776	2766	4830
s/o Rosecrans Ave	84.5	85.5	2565	3775	6434
n/o Alondra	84.5	85.5	2544	3749	6394
between Alondra and Rosecrans	84.5	85.5	2569	3780	6442
s/o Alondra	84.5	85.5	2539	3743	6384
n/o SR-91	83.7	84.7	2152	3254	5610
n/o Artesia Blvd	82.6	83.6	1711	2680	4691
s/o Artesia Blvd	83.7	84.7	2190	3303	5688
n/o Long Beach Blvd	84	85	2312	3457	5934
s/o Long Beach Blvd	83.8	84.8	2199	3314	5706
n/o Del Amo Blvd	83.9	84.9	2269	3403	5847
s/o Del Amo Blvd Off ramp	83.8	84.8	2222	3343	5753
s/o Del Amo Blvd	84	85	2298	3440	5906
n/o Wardlow Rd	82.3	83.3	1628	2569	4513
s/o Wardlow Rd	83.1	84.1	1926	2963	5147
n/o Willow St	83.4	84.4	2046	3118	5394
s/o Willow St	82.9	83.9	1841	2851	4967

between off/of namps at Willow St	83	84	1858	2873	5003
s/o Anaheim St	82.3	83.3	1634	2577	4525
s/o PCH	82.3	83.3	1634	2577	4525
n/o Anahiem St	82.3	83.3	1635	2579	4529
s/o Firestone Blvd	83.3	84.3	2011	3072	5321
s/o 9th St	77.6	78.6	600	1104	2070
n/o Long Beach Blvd	83.7	84.7	2171	3278	5649
n/o 9th St	77.8	78.8	632	1154	2158
n/o 10th St	80.7	81.7	1164	1935	3474
s/o On ramp at Del Amo Blvd	83.9	84.9	2257	3387	5822
s/o Willow St	82.8	83.8	1797	2794	4875
n/o Anaheim St	82.6	83.6	1731	2707	4735
N HENRY FORD AVE					
n/o Terminal Island fwy	69.7	70.7	117	277	578
n/o Anaheim St	68	69	82	204	437
N SEASIDE AVE					
e/o Navy Way	78	79	664	1203	2242
e/o Access Rd ramp	74.5	75.5	315	641	1254
w/o Navy Way	77.7	78.7	623	1141	2134
e/o Ferry St	70.9	71.9	148	338	696
e/o Navy Way ramp	78.8	79.8	772	1367	2521
e/o Navy Way	78	79	664	1203	2242
NAVY WAY					
s/o Reeves Ave	69	70	99	241	509
s/o Terminal Way	69.6	70.6	113	269	564
NEW DOCK ST					
w/o Henry Ford Ave	66.1	67.1	55	146	321
e/o Henry Ford Ave	68.4	69.4	87	216	461
w/o SB off ramp Terminal Island Fwy	68.4	69.4	87	216	461
w/o NB on ramp Terminal Island Fwy	66.6	67.6	60	157	344
between Terminal Island Fwy SB and NB Ra	66.6	67.6	60	157	344
PACIFIC COAST HIGHWAY					
between Avalon Blvd and Eubank Ave	71	72	152	345	708
between Watson Ave and Eubank Ave	70.9	71.9	150	342	704
w/o Alameda St	71.4	72.4	166	372	759
w/o East Rd	70.9	71.9	147	337	693
w/o East Rd	70.7	71.7	143	328	676
between Watson Ave and Blinn Ave	70.9	71.9	150	341	701
PICO AVE					
s/o Ocean Blvd	64.8	65.8	41	115	257
n/o Ocean Blvd	66.4	67.4	58	154	337
n/o Pier C St	69.1	70.1	102	247	521

s/o Pier C St	68.4	69.4	88	218	464
n/o Pier DSt	68.4	69.4	88	218	464
PIER A WAY					
e/o Henry Ford Ave	61.3	62.3	20	62	145
e/o Henry Ford Ave	65.2	66.2	45	123	274
e/o Henry Ford Ave	66.3	67.3	56	149	328
between Terminal Island Fwy and Henry Fo	53.4	54.4	4	15	40
n/o Terminal Island Fwy	61.9	62.9	23	69	161
e/o Henry Ford Ave	61.3	62.3	20	62	145
e/o Henry Ford Ave	62.4	63.4	25	75	173
PIER B ST					
s/o 9th St	65.2	66.2	45	123	274
w/o Edison Ave	66.4	67.4	58	152	333
n/o Pier A way	63.2	64.2	30	87	198
PIER C ST					
w/o Pier B St	63.5	64.5	32	92	210
w/o Pier B St	62.4	63.4	25	75	174
PIER D AVE					
s/o Pier D St	65.2	66.2	45	123	275
PIER D ST					
w/o I-710	66.6	67.6	60	158	345
PIER F AVE					
s/o Harbor Plaza	66.1	67.1	55	146	320
s/o Harbor Plaza	68.1	69.1	83	207	443
s/o Harbor Plaza	68.1	69.1	83	207	443
PIER J WAY					
e/o Panorama Dr	65.3	66.3	46	125	278
PORT ACCESS RD					
e/o Ocean Blvd Ramps	69	70	99	241	508
n/o New Dock St	62.6	63.6	26	78	179
n/o New Dock St	61.7	62.7	22	66	155
s/o Pier J way	66.6	67.6	61	159	346
s/o Pier J way	65.3	66.3	46	125	278
n/o Pier J way	66.6	67.6	61	159	346
s/o Harbor Scenic way	65.9	66.9	52	140	310
QUEENSWAY DR					
s/o Harbor Scenic Dr	66.5	67.5	60	156	342
S ALAMEDA ST					
n/o Wardlow Rd	72	73	188	413	837

S FRIES AVE					
s/o Water St	66.6	67.6	60	157	343
between Harry Bridges Blvd and Water St	64	65	35	100	227
S HARBOR SCENIC DR					
s/o Shoreline Dr	67.5	68.5	73	186	400
w/o Goldenshore St	69.9	70.9	120	282	589
e/o Goldenshore St	71.2	72.2	159	359	735
w/o Panorama Dr	69.8	70.8	118	279	582
S PICO AVE					
s/o Embarcadero	66.4	67.4	58	154	337
n/o Harbor Scenic Dr ramp	69.2	70.2	105	252	531
s/o Harbor Scenic Dr ramp	68.7	69.7	93	228	485
SAN DIEGO FWY					
e/o I-110	83.5	84.5	2086	3170	5477
e/o Wilmington Blvd	83.4	84.4	2031	3099	5364
w/o Santa Fe Ave	83.6	84.6	2145	3245	5596
e/o 218th St	83.9	84.9	2259	3390	5827
w/o Alameda St	83.6	84.6	2127	3222	5560
e/o Wilmington Ave	83.4	84.4	2023	3088	5346
w/o Wilmington Ave	83.5	84.5	2069	3148	5442
s/o Carson St	83.4	84.4	2022	3087	5345
n/o Carson St	83.3	84.3	1993	3049	5285
n/o 213th St	83.4	84.4	2037	3107	5376
e/o Avalon Blvd	83.3	84.3	2001	3059	5300
w/o Avalon Blvd	83.4	84.4	2050	3123	5403
SAN GABRIEL AV					
n/o PCH	75	76	353	704	1368
TERMINAL ISLAND FWY					
s/o PCH	73.4	74.4	250	526	1045
n/o PCH	72.7	73.7	217	468	938
between Off and loop On ramp at PCH	75.2	76.2	363	722	1400
s/o PCH off ramp	77.4	78.4	582	1077	2024
between Henry Ford Ave and Anaheim St	75.8	76.8	418	814	1564
n/o Ocean Blvd	71.7	72.7	174	388	790
s/o Henry Ford Ave	72.9	73.9	228	486	972
e/o Seaside Ave	73.7	74.7	270	562	1110
s/o Willow St	68.8	69.8	97	235	498
TERMINAL WAY					
w/o Ferry St	67.1	68.1	68	174	378
w/o Eaire St	69.6	70.6	113	268	562

s/o Navy Way	68.2	69.2	84	210	449
s/o Navy Way	66.8	67.8	63	163	356
s/o Navy Way	68.2	69.2	84	210	449
s/o Navy Way	63.3	64.3	30	88	202
s/o Navy Way	63.5	64.5	32	92	209
s/o Navy Way	66.9	67.9	64	166	362
W 9TH ST					
e/o Caspian Ave	62.9	63.9	28	82	188
s/o Anaheim St	66.5	67.5	59	156	340
e/o Santa Fe Ave	65.8	66.8	51	137	302
w/o Caspian Ave	64.3	65.3	37	105	237
n/o Pier B St	57.9	58.9	10	34	84
w/o Santa Fe Ave	67.4	68.4	72	183	395
s/o Pier B St	65.1	66.1	44	121	269
n/o Pier B St	60.6	61.6	17	55	131
W ANAHEIM ST					
e/o Harbor Ave	68.7	69.7	95	231	490
e/o Santa Fe Ave	71.8	72.8	178	396	804
w/o Harbor Ave	70.4	71.4	134	311	644
w/o Seabright Ave	70.5	71.5	137	317	656
w/o E I St	69.5	70.5	111	265	555
w/o Figueroa PL	68.2	69.2	84	209	446
between Wilmington and Neptune Ave	64.6	65.6	40	111	249
between Frigate Ave and Wilmington Blvd	64.8	65.8	41	115	257
e/o Neptune	64.4	65.4	38	108	242
between Neptune Ave and Fries Ave	64.3	65.3	37	105	237
w/o Frigate Ave	65.1	66.1	44	121	270
e/o Figueroa PL	68.4	69.4	88	217	461
between Seabright Ave and Santa Fe Ave	70.4	71.4	135	313	647
between Fries Ave and Avalon Blvd	65.1	66.1	44	122	271
between I-710 SB and NB Ramps	69	70	100	242	512
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	70.5	71.5	136	314	650
between Hawaiian Ave and Wilmington Blvd	70.9	71.9	148	337	694
between Neptune Ave and Fries Ave	69.8	70.8	119	281	586
between Figueroa St and Mar Vista Ave	70.8	71.8	147	336	692
between Fries Ave and Avalon Blvd	70.8	71.8	146	334	688
between Mar Vista Ave and Hawaiian Ave	70.8	71.8	147	336	692

W I ST					
n/o Anaheim St	61.6	62.6	21	65	153
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	68	69	82	204	437
w/o I-110 SB off ramp	68.3	69.3	87	216	460
between I-710 NB and SB ramps	70.6	71.6	141	324	669
e/o San Gabriel Ave	71.1	72.1	154	350	719
between San Gabriel Ave and Santa Fe Ave	71	72	153	347	712
e/o Wilmington Blvd	68.2	69.2	84	210	448
e/o Figueroa St	68	69	80	202	432
between Neptune Ave and Avalon Blvd	68.2	69.2	84	209	446
between Terminal Island Fwy SB and NB ra	71.1	72.1	157	354	726
e/o Santa Fe Ave	71	72	151	344	707
e/o Harbor Ave	70.4	71.4	135	313	649
w/o Termial Island Fwy	72.3	73.3	198	432	871
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	64	65	35	99	225
between Harbor Scenic Dr and Pier J Way	64.4	65.4	38	107	241
W SEPULVEDA BLVD					
e/o SB I-110 off Ramp	70.1	71.1	125	293	610
w/o NB I-110 off ramp	70	71	124	292	607
w/o Figueroa St	69.1	70.1	103	249	524
e/o Figueroa St	66.9	67.9	65	167	364
between SB and NB I-110 Ramps	70.1	71.1	126	296	614
W WATER ST					
between Fries Ave and Avalon Blvd	62.2	63.2	24	73	169
W WILLOW ST					
between NB and SB Terminal Island Fwy	69.9	70.9	122	286	596
between Terminal Island Fwy and Santa Fe	68	69	82	204	437
between Santa Fe Ave and Easy Ave	67.8	68.8	78	196	421
e/o Easy Ave	68.9	69.9	99	239	506
w/o SB I-710 ramps	68	69	81	202	433
w/o NB I-710 on ramp	68.4	69.4	88	218	464
SAN DIEGO FWY					
SB e/o Wilmington Ave	74	75	283	584	1152
SB w/o Wilmington Ave	74.3	75.3	306	625	1226

SB s/o Carson St	74.2	75.2	300	614	1207
NB n/o Carson St	75.3	76.3	376	744	1439
NB n/o 213th St	74.8	75.8	340	682	1329
NB e/o Avalon Blvd	75.4	76.4	380	750	1450
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB w/o Avalon Blvd	76	77	434	840	1609
SB e/o Avalon Blvd	74.8	75.8	338	679	1323
NB w/o Wilmington Ave	74.7	75.7	328	662	1292
NB e/o 218th St	75.3	76.3	372	736	1425
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB s/o Carson St	74.7	75.7	328	662	1292
SB n/o Carson St	74.6	75.6	324	656	1282
SAN GABRIEL AV					
n/o PCH	65	66	43	119	266
TERMINAL ISLAND FWY					
s/o PCH	72.8	73.8	222	476	954
n/o PCH	71.8	72.8	181	400	812
n/o Ocean Blvd	73.6	74.6	259	543	1077
NB s/o PCH	73.2	74.2	242	512	1019
SB n/o PCH	72.1	73.1	190	418	845
NB between Off and loop On ramp at PCH	73.2	74.2	242	512	1019
NB s/o PCH off ramp	76	77	428	830	1593
SB n/o Anaheim St	71.2	72.2	158	357	732
NB between Henry Ford Ave and Anaheim St	74.6	75.6	325	658	1285
NB n/o Ocean Blvd	72.6	73.6	213	460	924
SB n/o Ocean Blvd	71	72	152	346	710
s/o Henry Ford Ave	74.1	75.1	290	596	1174
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
e/o Seaside Ave	72.5	73.5	208	451	908
SB s/o Anaheim Way	74	75	287	592	1166
NB s/o Willow St	68.9	69.9	97	237	501
SB s/o PCH on ramp	74	75	287	591	1165
SB s/o PCH	72.9	73.9	225	481	962
NB n/o PCH	72.2	73.2	196	428	864
SB between loop Off and On ramp at PCH	72.8	73.8	224	479	960
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
s/o Henry Ford Ave	74.2	75.2	296	607	1194
TERMINAL WAY					
w/o Ferry St	72.4	73.4	203	442	890

w/o Eaire St	72.3	73.3	199	434	875
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	69.8	70.8	118	278	581
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	68.9	69.9	98	238	504
s/o Navy Way	69	70	99	241	510
s/o Navy Way	70.5	71.5	137	316	653
W 9TH ST					
e/o Caspian Ave	63.1	64.1	29	85	195
s/o Anaheim St	66.5	67.5	60	157	342
e/o Santa Fe Ave	64.7	65.7	41	114	256
w/o Caspian Ave	63.1	64.1	29	86	196
n/o Pier B St	61.6	62.6	21	65	153
w/o Santa Fe Ave	67.5	68.5	73	187	403
s/o Pier B St	71.4	72.4	164	369	754
n/o Pier B St	66.8	67.8	63	164	356
W ANAHEIM ST					
e/o Harbor Ave	66.8	67.8	63	164	356
e/o Santa Fe Ave	71.4	72.4	165	371	757
w/o Harbor Ave	69.3	70.3	107	257	540
w/o Seabright Ave	70.2	71.2	129	301	625
w/o E I St	68.2	69.2	85	211	450
w/o Figueroa PL	68.4	69.4	88	218	464
between Wilmington and Neptune Ave	63.4	64.4	31	90	206
between Frigate Ave and Wilmington Blvd	63.6	64.6	32	93	212
e/o Neptune	63.2	64.2	30	87	199
between Neptune Ave and Fries Ave	63.3	64.3	30	88	201
w/o Frigate Ave	63.5	64.5	32	91	208
e/o Figueroa PL	68.4	69.4	89	219	467
between Seabright Ave and Santa Fe Ave	70.1	71.1	125	292	608
between Fries Ave and Avalon Blvd	63.8	64.8	34	97	219
between I-710 SB and NB Ramps	66.9	67.9	64	167	362
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71	72	151	344	707
between Hawaiian Ave and Wilmington Blvd	70.8	71.8	146	334	688
between Neptune Ave and Fries Ave	70	71	124	291	606
between Figueroa St and Mar Vista Ave	70.7	71.7	143	328	677
between Fries Ave and Avalon Blvd	71.5	72.5	167	375	765
between Mar Vista Ave and Hawaiian Ave	70.8	71.8	146	334	688

W I ST	63.1	64.1	29	85	196
n/o Anaheim St					
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	67.1	68.1	67	172	373
w/o I-110 SB off ramp	67.4	68.4	71	181	392
between I-710 NB and SB ramps	71.8	72.8	180	399	811
e/o San Gabriel Ave	73.4	74.4	250	527	1047
between San Gabriel Ave and Santa Fe Ave	73.2	74.2	242	512	1020
e/o Wilmington Blvd	67.8	68.8	78	196	420
e/o Figueroa St	67.6	68.6	74	189	407
between Neptune Ave and Avalon Blvd	68.3	69.3	86	214	456
between Terminal Island Fwy SB and NB ra	71.5	72.5	170	379	774
e/o Santa Fe Ave	73.6	74.6	261	547	1083
e/o Harbor Ave	71.7	72.7	175	389	791
w/o Termial Island Fwy	70.2	71.2	129	301	625
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	70.4	71.4	135	312	647
between Harbor Scenic Dr and Pier J Way	71.3	72.3	161	363	743
W SEPULBEDA BLVD					
e/o SB I-110 off Ramp	67.7	68.7	76	192	413
w/o NB I-110 off ramp	68.4	69.4	88	217	462
w/o Figueroa St	68	69	80	202	432
e/o Figueroa St	65.7	66.7	50	136	300
between SB and NB I-110 Ramps	67.8	68.8	77	195	419
W WATER ST					
between Fries Ave and Avalon Blvd	64.4	65.4	38	108	242
W WILLOW ST					
between NB and SB Terminal Island Fwy	69.9	70.9	121	285	595
between Terminal Island Fwy and Santa Fe	66.7	67.7	61	160	350
between Santa Fe Ave and Easy Ave	66.7	67.7	62	163	354
e/o Easy Ave	68.7	69.7	93	228	484
w/o SB I-710 ramps	65.9	66.9	53	141	310
w/o NB I-710 on ramp	66.6	67.6	60	158	345
SAN DIEGO FWY					
SB e/o Wilmington Ave	74	75	283	584	1152

SB w/o Wilmington Ave	74.3	75.3	306	625	1226
SB s/o Carson St	74.2	75.2	300	614	1207
NB n/o Carson St	75.3	76.3	376	744	1439
NB n/o 213th St	74.8	75.8	340	682	1329
NB e/o Avalon Blvd	75.4	76.4	380	750	1450
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB w/o Avalon Blvd	76	77	434	840	1609
SB e/o Avalon Blvd	74.8	75.8	338	679	1323
NB w/o Wilmington Ave	74.7	75.7	328	662	1292
NB e/o 218th St	75.3	76.3	372	736	1425
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB s/o Carson St	74.7	75.7	328	662	1292
SB n/o Carson St	74.6	75.6	324	656	1282
SAN GABRIEL AV					
n/o PCH	65	66	43	119	266
TERMINAL ISLAND FWY					
s/o PCH	72.8	73.8	222	476	954
n/o PCH	71.8	72.8	181	400	812
n/o Ocean Blvd	73.6	74.6	259	543	1077
NB s/o PCH	73.2	74.2	242	512	1019
SB n/o PCH	72.1	73.1	190	418	845
NB between Off and loop On ramp at PCH	73.2	74.2	242	512	1019
NB s/o PCH off ramp	76	77	428	830	1593
SB n/o Anaheim St	71.2	72.2	158	357	732
NB between Henry Ford Ave and Anaheim St	74.6	75.6	325	658	1285
NB n/o Ocean Blvd	72.6	73.6	213	460	924
SB n/o Ocean Blvd	71	72	152	346	710
s/o Henry Ford Ave	74.1	75.1	290	596	1174
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
e/o Seaside Ave	72.5	73.5	208	451	908
SB s/o Anaheim Way	74	75	287	592	1166
NB s/o Willow St	68.9	69.9	97	237	501
SB s/o PCH on ramp	74	75	287	591	1165
SB s/o PCH	72.9	73.9	225	481	962
NB n/o PCH	72.2	73.2	196	428	864
SB between loop Off and On ramp at PCH	72.8	73.8	224	479	960
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
s/o Henry Ford Ave	74.2	75.2	296	607	1194
TERMINAL WAY					
w/o Ferry St	72.4	73.4	203	442	890

w/o Eaire St	72.3	73.3	199	434	875
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	69.8	70.8	118	278	581
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	68.9	69.9	98	238	504
s/o Navy Way	69	70	99	241	510
s/o Navy Way	70.5	71.5	137	316	653
W 9TH ST					
e/o Caspian Ave	63.1	64.1	29	85	195
s/o Anaheim St	66.5	67.5	60	157	342
e/o Santa Fe Ave	64.7	65.7	41	114	256
w/o Caspian Ave	63.1	64.1	29	86	196
n/o Pier B St	61.6	62.6	21	65	153
w/o Santa Fe Ave	67.5	68.5	73	187	403
s/o Pier B St	71.4	72.4	164	369	754
n/o Pier B St	66.8	67.8	63	164	356
W ANAHEIM ST					
e/o Harbor Ave	66.8	67.8	63	164	356
e/o Santa Fe Ave	71.4	72.4	165	371	757
w/o Harbor Ave	69.3	70.3	107	257	540
w/o Seabright Ave	70.2	71.2	129	301	625
w/o E I St	68.2	69.2	85	211	450
w/o Figueroa PL	68.4	69.4	88	218	464
between Wilmington and Neptune Ave	63.4	64.4	31	90	206
between Frigate Ave and Wilmington Blvd	63.6	64.6	32	93	212
e/o Neptune	63.2	64.2	30	87	199
between Neptune Ave and Fries Ave	63.3	64.3	30	88	201
w/o Frigate Ave	63.5	64.5	32	91	208
e/o Figueroa PL	68.4	69.4	89	219	467
between Seabright Ave and Santa Fe Ave	70.1	71.1	125	292	608
between Fries Ave and Avalon Blvd	63.8	64.8	34	97	219
between I-710 SB and NB Ramps	66.9	67.9	64	167	362
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71	72	151	344	707
between Hawaiian Ave and Wilmington Blvd	70.8	71.8	146	334	688
between Neptune Ave and Fries Ave	70	71	124	291	606
between Figueroa St and Mar Vista Ave	70.7	71.7	143	328	677
between Fries Ave and Avalon Blvd	71.5	72.5	167	375	765
between Mar Vista Ave and Hawaiian Ave	70.8	71.8	146	334	688

W I ST	63.1	64.1	29	85	196
n/o Anaheim St					
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	67.1	68.1	67	172	373
w/o I-110 SB off ramp	67.4	68.4	71	181	392
between I-710 NB and SB ramps	71.8	72.8	180	399	811
e/o San Gabriel Ave	73.4	74.4	250	527	1047
between San Gabriel Ave and Santa Fe Ave	73.2	74.2	242	512	1020
e/o Wilmington Blvd	67.8	68.8	78	196	420
e/o Figueroa St	67.6	68.6	74	189	407
between Neptune Ave and Avalon Blvd	68.3	69.3	86	214	456
between Terminal Island Fwy SB and NB ra	71.5	72.5	170	379	774
e/o Santa Fe Ave	73.6	74.6	261	547	1083
e/o Harbor Ave	71.7	72.7	175	389	791
w/o Termial Island Fwy	70.2	71.2	129	301	625
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	70.4	71.4	135	312	647
between Harbor Scenic Dr and Pier J Way	71.3	72.3	161	363	743
W SEPULVEDA BLVD					
e/o SB I-110 off Ramp	67.7	68.7	76	192	413
w/o NB I-110 off ramp	68.4	69.4	88	217	462
w/o Figueroa St	68	69	80	202	432
e/o Figueroa St	65.7	66.7	50	136	300
between SB and NB I-110 Ramps	67.8	68.8	77	195	419
W WATER ST	64.4	65.4	38	108	242
between Fries Ave and Avalon Blvd					
W WILLOW ST					
between NB and SB Terminal Island Fwy	69.9	70.9	121	285	595
between Terminal Island Fwy and Santa Fe	66.7	67.7	61	160	350
between Santa Fe Ave and Easy Ave	66.7	67.7	62	163	354
e/o Easy Ave	68.7	69.7	93	228	484
w/o SB I-710 ramps	65.9	66.9	53	141	310
w/o NB I-710 on ramp	66.6	67.6	60	158	345

Table F1-19. Project Roadway Traffic Noise Level Increase

ROADWAY SEGMENT	*Existing CNEL @ 100 ft.*	*Project CNEL @ 100 ft*	*Project Increment in Traffic Noise Level, dB*
1ST ST			
e/o East RD	74.6	73.2	-1.4
ACCESS RD			
e/o Ferry St	67.8	62.5	-5.3
ALAMEDA ST			
n/o Anaheim St	71.9	70.3	-1.6
w/o Eubank Ave	73.6	73.2	-0.4
s/o PCH	73.8	72.6	-1.2
s/o Anaheim St	74.5	74.1	-0.4
E 223RD ST			
w/o I-405 Off ramps	72.1	70.9	-1.2
E ANAHEIM ST			
between Avalon Blvd and Broad Ave	65.5	65.6	0.1
between Eubank Ave and Sanford St	65.8	65.9	0.1
between Sanford Ave and Sanford St	65.9	66	0.1
between Anaheim and Henry Ford	71.7	72.3	0.6
e/o Henry Ford Ave	73	73.6	0.6
w/o E I St	72.2	72.8	0.6
e/o Sanford Ave	68.9	68.9	0
w/o Anaheim Way	73	73.6	0.6
between Henry Ford Ave and Terminal Isla	73	73.6	0.6
E HARRY BRIDGES BLVD			
e/o Avalon Blvd	72.1	71.8	-0.3
E I ST			
between Terminal Island Fwy and Anaheim	71.5	72.6	1.1
E OPP ST			
w/o Farragut Ave	44.4	69.2	24.8
E SEPULVEDA BLVD			
e/o Alameda St	70.7	70.7	0
w/o Dolores St	69.3	69.3	0
w/o Wilmington Ave	70.1	70.1	0
e/o Wilmington Ave	69	68.9	-0.1
e/o Dolores St	68.9	68.9	0
w/o Avalon Blvd	68.9	68.8	-0.1
EAST RD			

n/o 1st St	65.9	68.4	2.5
s/o 1st St	65.1	70.4	5.3
FARRAGUT AVE	70	70.9	0.9
Between Terminal Island Fwy SB ramps and	44.4	69.2	24.8
s/o E OPP St			
FERRY ST	68.1	67.1	-1
between Seaside Ave and Access Rd	70.7	69.8	-0.9
between Terminal Way and Pitchard St			
FIGUEROA FWY			
n/o Anaheim St	65.3	65.3	0
n/o PCH	65.8	65.7	-0.1
HARBOR FWY			
n/o PCH off Ramp	83	82.8	-0.2
s/o Sepulveda Blvd	82.9	82.7	-0.2
n/o Sepulveda Blvd	83.1	82.9	-0.2
n/o 223rd St	83.3	83.1	-0.2
n/o 220th St	83.4	83.3	-0.1
n/o Carson St	83.7	83.5	-0.2
n/o Redondo Beach Blvd	83.7	83.7	0
between 135 th St and Rosecrans Ave	83.7	83.6	-0.1
n/o 135th St	83.4	83.4	0
n/o Alondra	83.6	83.6	0
between Del Amo Blvd and Torrance Blv	83.6	83.4	-0.2
between 168th and Alondra	83.8	83.8	0
n/o Del Amo Blvd	83.9	83.7	-0.2
n/o I-405	83	82.8	-0.2
s/o I-405	83	82.8	-0.2
s/o 182nd St	83.3	83.2	-0.1
between Artesia Blvd and 168th	83.1	83.1	0
s/o SR-91	83.2	83.2	0
s/o PCH off Ramp	82.6	82.4	-0.2
n/o El Segundo Blvd	83.5	83.5	0
s/o El Segundo Blvd	83.4	83.4	0
n/o Anaheim St	82.8	82.7	-0.1
s/o 120th St	83.4	83.4	0
n/o 120th St	82.9	82.9	0
n/o I-105	83.4	83.4	0
n/o 108th St	84	84	0
s/o 223rd St	83.4	83.2	-0.2
s/o 190th St	83.3	83.1	-0.2
HARBOR PLZ	70	68.2	-1.8

between Pier F Ave and Pico Ave			
HARBOR SCENIC DR			
w/o Goldenshore St	72.5	71	-1.5
s/o Shoreline Dr	73.3	71.5	-1.8
n/o Shoreline Dr	74.1	72.1	-2
HARBOR SCENIC WAY			
e/o Queens Hwy	69.5	67.7	-1.8
e/o Port Access Rd	70	68.4	-1.6
w/o Port Access Rd	70	68.4	-1.6
JOHN S GIBSON BLVD			
n/o I-110 Ramps	70.7	70.2	-0.5
LONG BEACH FWY			
n/o Imperial Hwy	85.8	84	-1.8
s/o Imperial Hwy	86.1	84.3	-1.8
n/o I-105	85.7	83.8	-1.9
s/o I-105	85.7	83.7	-2
n/o Rosecrans Ave	85.7	83.7	-2
s/o Rosecrans Ave	86.9	85.5	-1.4
n/o Alondra	86.9	85.5	-1.4
between Alondra and Rosecrans	86.9	85.5	-1.4
s/o Alondra	86.8	85.5	-1.3
n/o SR-91	86.3	84.7	-1.6
n/o Artesia Blvd	85.5	83.6	-1.9
s/o Artesia Blvd	86.3	84.7	-1.6
n/o Long Beach Blvd	86.5	85	-1.5
s/o Long Beach Blvd	86.3	84.8	-1.5
n/o Del Amo Blvd	86.4	84.9	-1.5
s/o Del Amo Blvd Off ramp	86.4	84.8	-1.6
s/o Del Amo Blvd	86.5	85	-1.5
n/o Wardlow Rd	85	83.3	-1.7
s/o Wardlow Rd	85.6	84.1	-1.5
n/o Willow St	84.6	84.4	-0.2
s/o Willow St	85.4	83.9	-1.5
between off/of namps at Willow St	85.4	84	-1.4
s/o Anaheim St	84.5	83.3	-1.2
s/o PCH	84.5	83.3	-1.2
n/o Anahiem St	84.7	83.3	-1.4
s/o Firestone Blvd	86	84.3	-1.7
s/o 9th St	81.8	78.6	-3.2
n/o Long Beach Blvd	86.3	84.7	-1.6
n/o 9th St	82.8	78.8	-4
n/o 10th St	83.3	81.7	-1.6
s/o On ramp at Del Amo Blvd	86.4	84.9	-1.5

s/o Willow St	85.3	83.8	-1.5
n/o Anaheim St	84.7	83.6	-1.1
N HENRY FORD AVE			
n/o Terminal Island fwy	71.5	70.7	-0.8
n/o Anaheim St	69.7	69	-0.7
N SEASIDE AVE			
e/o Navy Way	79.6	79	-0.6
e/o Access Rd ramp	75.6	75.5	-0.1
w/o Navy Way	78.9	78.7	-0.2
e/o Ferry St	72.8	71.9	-0.9
e/o Navy Way ramp	80.6	79.8	-0.8
e/o Navy Way	79.6	79	-0.6
NAVY WAY			
s/o Reeves Ave	71.4	70	-1.4
s/o Terminal Way	73.4	70.6	-2.8
NEW DOCK ST			
w/o Henry Ford Ave	69.4	67.1	-2.3
e/o Henry Ford Ave	71.7	69.4	-2.3
w/o SB off ramp Terminal Island Fwy	71.7	69.4	-2.3
w/o NB on ramp Terminal Island Fwy	69	67.6	-1.4
between Terminal Island Fwy SB and NB Ra	69	67.6	-1.4
PACIFIC COAST HIGHWAY			
between Avalon Blvd and Eubank Ave	72	72	0
between Watson Ave and Eubank Ave	72	71.9	-0.1
w/o Alameda St	72.5	72.4	-0.1
w/o East Rd	72.2	71.9	-0.3
w/o East Rd	71.6	71.7	0.1
between Watson Ave and Blinn Ave	72	71.9	-0.1
PICO AVE			
s/o Ocean Blvd	66.5	65.8	-0.7
n/o Ocean Blvd	68.9	67.4	-1.5
n/o Pier C St	72.3	70.1	-2.2
s/o Pier C St	71.4	69.4	-2
n/o Pier DSt	71.4	69.4	-2
PIER A WAY			
e/o Henry Ford Ave	65.5	62.3	-3.2
e/o Henry Ford Ave	67.8	66.2	-1.6
e/o Henry Ford Ave	69.5	67.3	-2.2
between Terminal Island Fwy and Henry Fo	54.4	54.4	0
n/o Terminal Island Fwy	64.4	62.9	-1.5
e/o Henry Ford Ave	64	62.3	-1.7
e/o Henry Ford Ave	65.1	63.4	-1.7

PIER B ST			
s/o 9th St	68.3	66.2	-2.1
w/o Edison Ave	68.1	67.4	-0.7
n/o Pier A way	65.5	64.2	-1.3
PIER C ST	66.9	64.5	-2.4
w/o Pier B St	66.3	63.4	-2.9
w/o Pier B St			
PIER D AVE			
s/o Pier D St	60.4	66.2	5.8
PIER D ST			
w/o I-710	68.3	67.6	-0.7
PIER F AVE			
s/o Harbor Plaza	69.1	67.1	-2
PIER G AV			
s/o Harbor Plaza	48.3	69.1	20.8
s/o Harbor Plaza	48.3	69.1	20.8
PIER J WAY			
e/o Panorama Dr	70	66.3	-3.7
PORT ACCESS RD			
e/o Ocean Blvd Ramps	71.3	70	-1.3
n/o New Dock St	67.4	63.6	-3.8
n/o New Dock St	67	62.7	-4.3
s/o Pier J way	69.2	67.6	-1.6
s/o Pier J way	70	66.3	-3.7
n/o Pier J way	69.2	67.6	-1.6
s/o Harbor Scenic way	68.7	66.9	-1.8
QUEENSWAY DR			
s/o Harbor Scenic Dr	68.6	67.5	-1.1
S ALAMEDA ST			
n/o Wardlow Rd	69.6	73	3.4
S FRIES AVE			
s/o Water St	68.7	67.6	-1.1
between Harry Bridges Blvd and Water St	67	65	-2
S HARBOR SCENIC DR			
s/o Shoreline Dr	69.4	68.5	-0.9
w/o Goldenshore St	73	70.9	-2.1
e/o Goldenshore St	73.4	72.2	-1.2

w/o Panorama Dr	73.4	70.8	-2.6
S PICO AVE			
s/o Embarcadero	66.7	67.4	0.7
n/o Harbor Scenic Dr ramp	70.4	70.2	-0.2
s/o Harbor Scenic Dr ramp	69.9	69.7	-0.2
SAN DIEGO FWY			
e/o I-110	84.5	84.5	0
e/o Wilmington Blvd	84.4	84.4	0
w/o Santa Fe Ave	84.9	84.6	-0.3
e/o 218th St	85.1	84.9	-0.2
w/o Alameda St	84.6	84.6	0
e/o Wilmington Ave	84.4	84.4	0
w/o Wilmington Ave	84.5	84.5	0
s/o Carson St	84.4	84.4	0
n/o Carson St	84.3	84.3	0
n/o 213th St	84.4	84.4	0
e/o Avalon Blvd	84.3	84.3	0
w/o Avalon Blvd	84.5	84.4	-0.1
SAN GABRIEL AV			
n/o PCH	65	76	11
TERMINAL ISLAND FWY			
s/o PCH	76.1	74.4	-1.7
n/o PCH	75.3	73.7	-1.6
between Off and loop On ramp at PCH	76.1	76.2	0.1
s/o PCH off ramp	78	78.4	0.4
between Henry Ford Ave and Anaheim St	76.5	76.8	0.3
n/o Ocean Blvd	72.8	72.7	-0.1
s/o Henry Ford Ave	74.2	73.9	-0.3
e/o Seaside Ave	75	74.7	-0.3
s/o Willow St	71.5	69.8	-1.7
TERMINAL WAY			
w/o Ferry St	72.4	68.1	-4.3
w/o Eaire St	71.9	70.6	-1.3
s/o Navy Way	71.7	69.2	-2.5
s/o Navy Way	69.4	67.8	-1.6
s/o Navy Way	71.7	69.2	-2.5
s/o Navy Way	67.9	64.3	-3.6
s/o Navy Way	68	64.5	-3.5
s/o Navy Way	69.8	67.9	-1.9
W 9TH ST			
e/o Caspian Ave	64	63.9	-0.1

s/o Anaheim St	68.7	67.5	-1.2
e/o Santa Fe Ave	67.8	66.8	-1
w/o Caspian Ave	65.4	65.3	-0.1
n/o Pier B St	60.7	58.9	-1.8
w/o Santa Fe Ave	69	68.4	-0.6
s/o Pier B St	70	66.1	-3.9
n/o Pier B St	66.6	61.6	-5
W ANAHEIM ST			
e/o Harbor Ave	69.6	69.7	0.1
e/o Santa Fe Ave	73.1	72.8	-0.3
w/o Harbor Ave	71.3	71.4	0.1
w/o Seabright Ave	71.9	71.5	-0.4
w/o E I St	69.8	70.5	0.7
w/o Figueroa PL	69.2	69.2	0
between Wilmington and Neptune Ave	65.5	65.6	0.1
between Frigate Ave and Wilmington Blvd	65.8	65.8	0
e/o Neptune	65.3	65.4	0.1
between Neptune Ave and Fries Ave	65.2	65.3	0.1
w/o Frigate Ave	66.1	66.1	0
e/o Figueroa PL	69.4	69.4	0
between Seabright Ave and Santa Fe Ave	71.6	71.4	-0.2
between Fries Ave and Avalon Blvd	66.1	66.1	0
between I-710 SB and NB Ramps	69.8	70	0.2
W HARRY BRIDGES BLVD			
between Wilmington Blvd and Neptune Ave	71.5	71.5	0
between Hawaiian Ave and Wilmington Blvd	72	71.9	-0.1
between Neptune Ave and Fries Ave	70.9	70.8	-0.1
between Figueroa St and Mar Vista Ave	72	71.8	-0.2
between Fries Ave and Avalon Blvd	72.2	71.8	-0.4
between Mar Vista Ave and Hawaiian Ave	72	71.8	-0.1
W I ST			
n/o Anaheim St	62.6	62.6	0
W PACIFIC COAST HIGHWAY			
between I-110 SB off ramp and Figueroa S	69.1	69	-0.1
w/o I-110 SB off ramp	69.3	69.3	0
between I-710 NB and SB ramps	72.7	71.6	-1.1
e/o San Gabriel Ave	73.9	72.1	-1.8
between San Gabriel Ave and Santa Fe Ave	73.9	72	-1.9
e/o Wilmington Blvd	69.3	69.2	-0.1
e/o Figueroa St	69.1	69	-0.1
between Neptune Ave and Avalon Blvd	69.3	69.2	-0.1
between Terminal Island Fwy SB and NB ramp	72.6	72.1	-0.5
e/o Santa Fe Ave	73.7	72	-1.7

e/o Harbor Ave	72.5	71.4	-1.1
w/o Termial Island Fwy	72.5	73.3	0.8
W PANORAMA DR			
between Queens Hwy and Harbor Scenic Dr	68.8	65	-3.8
between Harbor Scenic Dr and Pier J Way	69.5	65.4	-4.1
W SEPULVEDA BLVD			
e/o SB I-110 off Ramp	71.1	71.1	0
w/o NB I-110 off ramp	71.1	71	-0.1
w/o Figueroa St	70.2	70.1	-0.1
e/o Figueroa St	68	67.9	-0.1
between SB and NB I-110 Ramps	71.1	71.1	0
W WATER ST			
between Fries Ave and Avalon Blvd	63.3	63.2	-0.1
W WILLOW ST			
between NB and SB Terminal Island Fwy	71.7	70.9	-0.8
between Terminal Island Fwy and Santa Fe	69.1	69	-0.1
between Santa Fe Ave and Easy Ave	68.9	68.8	-0.1
e/o Easy Ave	70	69.9	-0.1
w/o SB I-710 ramps	69	69	0
w/o NB I-710 on ramp	69.5	69.4	-0.1
SAN DIEGO FWY			
SB e/o Wilmington Ave	75	75	0
SB w/o Wilmington Ave	75.3	75.3	0
SB s/o Carson St	75.2	75.2	0
NB n/o Carson St	76.3	76.3	0
NB n/o 213th St	75.8	75.8	0
NB e/o Avalon Blvd	76.4	76.4	0
SB e/o Avalon Blvd	75.6	75.6	0
NB w/o Avalon Blvd	77	77	0
SB e/o Avalon Blvd	75.8	75.8	0
NB w/o Wilmington Ave	75.7	75.7	0
NB e/o 218th St	76.3	76.3	0
SB e/o Avalon Blvd	75.6	75.6	0
NB s/o Carson St	75.7	75.7	0
SB n/o Carson St	75.6	75.6	0
SAN GABRIEL AV			
n/o PCH	66	66	0
TERMINAL ISLAND FWY			
s/o PCH	73.8	73.8	0

n/o PCH	72.8	72.8	0
n/o Ocean Blvd	74.6	74.6	0
NB s/o PCH	74.2	74.2	0
SB n/o PCH	73.1	73.1	0
NB between Off and loop On ramp at PCH	74.2	74.2	0
NB s/o PCH off ramp	77	77	0
SB n/o Anaheim St	72.2	72.2	0
NB between Henry Ford Ave and Anaheim St	75.6	75.6	0
NB n/o Ocean Blvd	73.6	73.6	0
SB n/o Ocean Blvd	72	72	0
s/o Henry Ford Ave	75.1	75.1	0
SB s/o Henry Ford Ave	74.1	74.1	0
e/o Seaside Ave	73.5	73.5	0
SB s/o Anaheim Way	75	75	0
NB s/o Willow St	69.9	69.9	0
SB s/o PCH on ramp	75	75	0
SB s/o PCH	73.9	73.9	0
NB n/o PCH	73.2	73.2	0
SB between loop Off and On ramp at PCH	73.8	73.8	0
SB s/o Henry Ford Ave	74.1	74.1	0
s/o Henry Ford Ave	75.2	75.2	0
TERMINAL WAY			
w/o Ferry St	73.4	73.4	0
w/o Eaire St	73.3	73.3	0
s/o Navy Way	73.2	73.2	0
s/o Navy Way	70.8	70.8	0
s/o Navy Way	73.2	73.2	0
s/o Navy Way	69.9	69.9	0
s/o Navy Way	70	70	0
s/o Navy Way	71.5	71.5	0
W 9TH ST			
e/o Caspian Ave	64.1	64.1	0
s/o Anaheim St	67.5	67.5	0
e/o Santa Fe Ave	65.7	65.7	0
w/o Caspian Ave	64.1	64.1	0
n/o Pier B St	62.6	62.6	0
w/o Santa Fe Ave	68.5	68.5	0
s/o Pier B St	72.4	72.4	0
n/o Pier B St	67.8	67.8	0
W ANAHEIM ST			
e/o Harbor Ave	67.8	67.8	0
e/o Santa Fe Ave	72.4	72.4	0
w/o Harbor Ave	70.3	70.3	0

w/o Seabright Ave	71.2	71.2	0
w/o E I St	69.2	69.2	0
w/o Figueroa PL	69.4	69.4	0
between Wilmington and Neptune Ave	64.4	64.4	0
between Frigate Ave and Wilmington Blvd	64.6	64.6	0
e/o Neptune	64.2	64.2	0
between Neptune Ave and Fries Ave	64.3	64.3	0
w/o Frigate Ave	64.5	64.5	0
e/o Figueroa PL	69.4	69.4	0
between Seabright Ave and Santa Fe Ave	71.1	71.1	0
between Fries Ave and Avalon Blvd	64.8	64.8	0
between I-710 SB and NB Ramps	67.9	67.9	0
W HARRY BRIDGES BLVD			
between Wilmington Blvd and Neptune Ave	72	72	0
between Hawaiian Ave and Wilmington Blvd	71.8	71.8	0
between Neptune Ave and Fries Ave	71	71	0
between Figueroa St and Mar Vista Ave	71.7	71.7	0
between Fries Ave and Avalon Blvd	72.5	72.5	0
between Mar Vista Ave and Hawaiian Ave	71.8	71.8	0
W I ST			
n/o Anaheim St	64.1	64.1	0
W PACIFIC COAST HIGHWAY			
between I-110 SB off ramp and Figueroa S	68.1	68.1	0
w/o I-110 SB off ramp	68.4	68.4	0
between I-710 NB and SB ramps	72.8	72.8	0
e/o San Gabriel Ave	74.4	74.4	0
between San Gabriel Ave and Santa Fe Ave	74.2	74.2	0
e/o Wilmington Blvd	68.8	68.8	0
e/o Figueroa St	68.6	68.6	0
between Neptune Ave and Avalon Blvd	69.3	69.3	0
between Terminal Island Fwy SB and NB ra	72.5	72.5	0
e/o Santa Fe Ave	74.6	74.6	0
e/o Harbor Ave	72.7	72.7	0
w/o Termial Island Fwy	71.2	71.2	0
W PANORAMA DR			
between Queens Hwy and Harbor Scenic Dr	71.4	71.4	0
between Harbor Scenic Dr and Pier J Way	72.3	72.3	0
W SEPULVEDA BLVD			
e/o SB I-110 off Ramp	68.7	68.7	0
w/o NB I-110 off ramp	69.4	69.4	0
w/o Figueroa St	69	69	0
e/o Figueroa St	66.7	66.7	0
between SB and NB I-110 Ramps	68.8	68.8	0

W WATER ST			
between Fries Ave and Avalon Blvd	65.4	65.4	0
W WILLOW ST			
between NB and SB Terminal Island Fwy	70.9	70.9	0
between Terminal Island Fwy and Santa Fe	67.7	67.7	0
between Santa Fe Ave and Easy Ave	67.7	67.7	0
e/o Easy Ave	69.7	69.7	0
w/o SB I-710 ramps	66.9	66.9	0
w/o NB I-710 on ramp	67.6	67.6	0

Table F1-20. Future Year 2023 Project Roadway Traffic Noise Level, CNEL, Increase

ROADWAY SEGMENT	*Existing Noise Level CNEL, dBA*	*Future w/o Project Noise Level CNEL, dBA*	*Future w/ Project Noise Level CNEL, dBA*	*Future Increase Above Exisiting, dB*	*Project Incremental Contribution dB*
1ST ST					
e/o East RD	74.6	74.4	75.9	-0.2	1.5
ACCESS RD					
e/o Ferry St	67.8	65.9	70.2	-1.9	4.3
ALAMEDA ST					
n/o Anaheim St	71.9	72.5	71.8	0.6	-0.6
w/o Eubank Ave	73.6	75.2	75.2	1.6	0.0
s/o PCH	73.8	74.3	73.8	0.5	-0.4
s/o Anaheim St	74.5	75.8	75.9	1.3	0.0
E 223RD AVE					
w/o I-405 Off ramps	72.1	72.8	72.3	0.7	-0.5
E ANAHEIM ST					
between Avalon Blvd and Broad Ave	65.5	65.4	65.4	-0.1	0.0
between Eubank Ave and Sanford St	65.8	65.5	65.5	-0.3	0.0
between Sanford Ave and Sanford St	65.9	65.6	65.6	-0.3	0.0
between Anaheim and Henry Ford	71.7	72.9	73.3	1.2	0.5
e/o Henry Ford Ave	73	74.3	74.8	1.3	0.5
w/o E I St	72.2	72.6	73.3	0.4	0.7
e/o Sanford Ave	68.9	68.6	68.7	-0.3	0.0
w/o Anaheim Way	73	74.3	74.8	1.3	0.5
between Henry Ford Ave and Terminal Isla	73	74.3	74.8	1.3	0.5
E HARRY BRIDGES BLVD					
e/o Avalon Blvd	72.1	73.5	73.6	1.4	0.1
E I ST					
between Terminal Island Fwy and Anaheim	71.5	70.5	71.8	-1.0	1.3
E OPP ST					
w/o Farragut Ave	44.4	46.4	60.2	2.0	13.8
E SEPULVEDA BLVD					
e/o Alameda St	70.7	69.8	69.8	-0.9	0.0
w/o Dolores St	69.3	68.7	68.6	-0.6	0.0
w/o Wilmington Ave	70.1	70.4	70.3	0.3	0.0
e/o Wilmington Ave	69	69.0	69.0	0.0	0.0
e/o Dolores St	68.9	68.3	68.2	-0.6	0.0
w/o Avalon Blvd	68.9	68.2	68.2	-0.7	0.0
EAST RD					

n/o 1st St	65.9	68.5	68.3	2.6	-0.1
s/o 1st St	65.1	67.6	69.4	2.5	1.8
FARRAGUT AVE					
Between Terminal Island Fwy SB ramps and	70	70.2	70.9	0.2	0.7
s/o E OPP St	44.4	44.9	60.7	0.5	15.8
FERRY ST					
between Seaside Ave and Access Rd	68.1	70.2	69.7	2.1	-0.5
between Terminal Way and Pitchard St	70.7	73.1	72.7	2.4	-0.4
FIGUEROA ST					
n/o Anaheim St	65.3	66.2	66.2	0.9	0.0
n/o PCH	65.8	66.8	66.8	1.0	0.0
HARBOR FWY					
n/o PCH off Ramp	83	84.6	84.7	1.6	0.1
s/o Sepulveda Blvd	82.9	84.5	84.6	1.6	0.1
n/o Sepulveda Blvd	83.1	84.6	84.7	1.5	0.1
n/o 223rd St	83.3	84.7	84.8	1.4	0.1
n/o 220th St	83.4	84.8	84.9	1.4	0.1
n/o Carson St	83.7	84.9	85.0	1.2	0.1
n/o Redondo Beach Blvd	83.7	84.4	84.9	0.7	0.5
between 135 th St and Rosecrans Ave	83.7	84.3	84.7	0.6	0.4
n/o 135th St	83.4	84.3	84.6	0.9	0.4
n/o Alondra	83.6	84.3	84.8	0.7	0.5
between Del Amo Blvd and Torrance Blv	83.6	84.8	84.9	1.2	0.1
between 168th and Alondra	83.8	84.6	85.1	0.8	0.5
n/o Del Amo Blvd	83.9	85.0	85.2	1.1	0.1
n/o I-405	83	84.1	84.4	1.1	0.2
s/o I-405	83	84.1	84.3	1.1	0.2
s/o 182nd St	83.3	84.2	84.6	0.9	0.4
between Artesia Blvd and 168th	83.1	83.9	84.5	0.8	0.5
s/o SR-91	83.2	83.9	84.3	0.7	0.4
s/o PCH off Ramp	82.6	84.4	84.5	1.8	0.1
n/o El Segundo Blvd	83.5	84.3	84.6	0.8	0.3
s/o El Segundo Blvd	83.4	84.2	84.8	0.8	0.5
n/o Anaheim St	82.8	84.3	85.0	1.5	0.7
s/o 120th St	83.4	84.2	84.6	0.8	0.4
n/o 120th St	82.9	83.6	83.9	0.7	0.3
n/o I-105	83.4	84.0	84.4	0.6	0.4
n/o 108th St	84	84.6	84.9	0.6	0.4
s/o 223rd St	83.4	84.8	84.9	1.4	0.1
s/o 190th St	83.3	84.3	84.2	1.0	0.0
HARBOR PLZ					
between Pier F Ave and Pico Ave	70	72.9	72.7	2.9	-0.2
HARBOR SCENIC DR					

w/o Goldenshore St	72.5	75.6	74.8	3.1	-0.8
s/o Shoreline Dr	73.3	77.5	77.0	4.2	-0.5
n/o Shoreline Dr	74.1	78.5	78.1	4.4	-0.4
HARBOR SCENIC WAY					
e/o Queens Hwy	69.5	74.2	73.9	4.7	-0.3
e/o Port Access Rd	70	74.3	73.9	4.3	-0.3
w/o Port Access Rd	70	74.3	73.9	4.3	-0.3
JOHN S GIBSON BLVD					
n/o I-110 Ramps	70.7	71.8	71.8	1.1	0.0
LONG BEACH FWY					
n/o Imperial Hwy	85.8	87.0	86.2	1.2	-0.8
s/o Imperial Hwy	86.1	87.2	86.5	1.1	-0.7
n/o I-105	85.7	86.9	86.1	1.2	-0.8
s/o I-105	85.7	86.9	85.9	1.2	-0.9
n/o Rosecrans Ave	85.7	86.9	86.1	1.2	-0.8
s/o Rosecrans Ave	86.9	88.3	87.9	1.4	-0.4
n/o Alondra	86.9	88.3	87.9	1.4	-0.4
between Alondra and Rosecrans	86.9	88.3	87.9	1.4	-0.4
s/o Alondra	86.8	88.3	87.8	1.5	-0.5
n/o SR-91	86.3	87.8	87.1	1.5	-0.7
n/o Artesia Blvd	85.5	87.2	86.2	1.7	-0.9
s/o Artesia Blvd	86.3	88.2	87.4	1.9	-0.7
n/o Long Beach Blvd	86.5	88.4	87.8	1.9	-0.6
s/o Long Beach Blvd	86.3	88.3	87.7	2.0	-0.6
n/o Del Amo Blvd	86.4	88.4	87.8	2.0	-0.6
s/o Del Amo Blvd Off ramp	86.4	88.3	87.7	1.9	-0.6
s/o Del Amo Blvd	86.5	88.4	87.9	1.9	-0.6
n/o Wardlow Rd	85	87.4	86.6	2.4	-0.7
s/o Wardlow Rd	85.6	87.7	87.2	2.1	-0.5
n/o Willow St	84.6	87.1	87.2	2.5	0.0
s/o Willow St	85.4	87.6	87.0	2.2	-0.7
between off/of namps at Willow St	85.4	87.7	87.1	2.3	-0.6
s/o Anaheim St	84.5	86.7	86.5	2.2	-0.2
s/o PCH	84.5	86.7	86.5	2.2	-0.2
n/o Anahiem St	84.7	86.9	86.1	2.2	-0.8
s/o Firestone Blvd	86	87.2	86.4	1.2	-0.8
s/o 9th St	81.8	85.9	85.3	4.1	-0.5
n/o Long Beach Blvd	86.3	88.2	87.3	1.9	-0.8
n/o 9th St	82.8	85.7	86.0	2.9	0.3
n/o 10th St	83.3	86.3	85.7	3.0	-0.6
s/o On ramp at Del Amo Blvd	86.4	88.4	87.8	2.0	-0.6
s/o Willow St	85.3	87.6	87.0	2.3	-0.6
n/o Anaheim St	84.7	87.0	87.1	2.3	0.1

N HENRY FORD AVE					
n/o Terminal Island fwy	71.5	71.6	71.5	0.1	-0.2
n/o Anaheim St	69.7	69.7	69.6	0.0	-0.1
N SEASIDE AVE					
e/o Navy Way	79.6	82.0	81.9	2.4	-0.1
e/o Access Rd ramp	75.6	78.4	78.4	2.8	0.0
w/o Navy Way	78.9	81.7	81.7	2.8	0.0
e/o Ferry St	72.8	74.9	74.4	2.1	-0.5
e/o Navy Way ramp	80.6	82.7	82.9	2.1	0.1
e/o Navy Way	79.6	82.0	81.9	2.4	-0.1
NAVY WAY					
s/o Reeves Ave	71.4	77.8	77.7	6.4	-0.1
s/o Terminal Way	73.4	78.8	78.4	5.4	-0.4
NEW DOCK ST					
w/o Henry Ford Ave	69.4	74.1	74.0	4.7	-0.2
e/o Henry Ford Ave	71.7	76.8	76.5	5.1	-0.3
w/o SB off ramp Terminal Island Fwy	71.7	76.8	76.5	5.1	-0.3
w/o NB on ramp Terminal Island Fwy	69	75.7	75.8	6.7	0.1
between Terminal Island Fwy SB and NB Ra	69	75.7	75.8	6.7	0.1
PACIFIC COAST HIGHWAY					
between Avalon Blvd and Eubank Ave	72	71.9	71.9	-0.1	-0.1
between Watson Ave and Eubank Ave	72	71.9	71.8	-0.1	-0.1
w/o Alameda St	72.5	72.8	72.7	0.3	0.0
w/o East Rd	72.2	72.1	71.9	-0.1	-0.2
w/o East Rd	71.6	71.7	71.8	0.1	0.0
between Watson Ave and Blinn Ave	72	71.7	71.6	-0.3	-0.1
PICO AVE					
s/o Ocean Blvd	66.5	71.7	72.1	5.2	0.4
n/o Ocean Blvd	68.9	73.7	73.3	4.8	-0.3
n/o Pier C St	72.3	75.7	74.7	3.4	-1.0
s/o Pier C St	71.4	74.8	73.8	3.4	-1.0
n/o Pier DSt	71.4	74.8	73.8	3.4	-1.0
PIER A WAY					
e/o Henry Ford Ave	65.5	68.4	67.7	2.9	-0.7
e/o Henry Ford Ave	67.8	69.3	68.8	1.5	-0.5
e/o Henry Ford Ave	69.5	70.4	69.5	0.9	-0.9
between Terminal Island Fwy and Henry Fo	54.4	61.4	65.4	7.0	3.9
n/o Terminal Island Fwy	64.4	66.1	65.9	1.7	-0.2
e/o Henry Ford Ave	64	65.4	65.1	1.4	-0.2
e/o Henry Ford Ave	65.1	66.5	65.8	1.4	-0.7
PIER B ST					
s/o 9th St	68.3	70.7	70.6	2.4	-0.1

w/o Edison Ave	68.1	70.2	70.1	2.1	-0.1
n/o Pier A way	65.5	68.6	68.3	3.1	-0.3
PIER C ST					
w/o Pier B St	66.9	69.4	69.2	2.5	-0.3
w/o Pier B St	66.3	69.4	68.6	3.1	-0.7
PIER D AVE					
s/o Pier D St	60.4	62.7	62.7	2.3	0.0
PIER D ST					
w/o I-710	68.3	70.2	69.0	1.9	-1.3
PIER F AVE					
s/o Harbor Plaza	69.1	72.1	71.7	3.0	-0.4
PIER G AVE					
s/o Harbor Plaza	48.3	73.8	74.5	25.5	0.7
s/o Harbor Plaza	48.3	73.8	74.5	25.5	0.7
PIER J WAY					
e/o Panorama Dr	70	71.7	70.6	1.7	-1.1
PORT ACCESS RD					
e/o Ocean Blvd Ramps	71.3	76.3	76.1	5.0	-0.1
n/o New Dock St	67.4	72.1	71.4	4.7	-0.6
n/o New Dock St	67	71.9	71.2	4.9	-0.7
s/o Pier J way	69.2	73.3	73.1	4.1	-0.2
s/o Pier J way	70	71.7	70.6	1.7	-1.1
n/o Pier J way	69.2	73.3	73.1	4.1	-0.2
s/o Harbor Scenic way	68.7	73.2	73.0	4.5	-0.2
QUEENSWAY DR					
s/o Harbor Scenic Dr	68.6	72.1	71.6	3.5	-0.5
S ALAMEDA ST					
n/o Wardlow Rd	69.6	73.7	73.4	4.1	-0.3
S FRIES AVE					
s/o Water St	68.7	72.5	72.6	3.8	0.1
between Harry Bridges Blvd and Water St	67	70.9	71.2	3.9	0.3
S HARBOR SCENIC DR					
s/o Shoreline Dr	69.4	72.8	72.2	3.4	-0.6
w/o Goldenshore St	73	76.2	75.6	3.2	-0.6
e/o Goldenshore St	73.4	77.7	77.2	4.3	-0.5
w/o Panorama Dr	73.4	76.3	75.9	2.9	-0.4
S PICO AVE					
s/o Embarcadero	66.7	72.2	72.7	5.5	0.5
n/o Harbor Scenic Dr ramp	70.4	76.4	76.6	6.0	0.2
s/o Harbor Scenic Dr ramp	69.9	76.1	76.4	6.2	0.3
SAN DIEGO FWY					
e/o I-110	84.5	85.3	86.0	0.8	0.6

e/o Wilmington Blvd	84.4	85.2	85.7	0.8	0.5
w/o Santa Fe Ave	84.9	85.8	85.9	0.9	0.1
e/o 218th St	85.1	86.0	86.2	0.9	0.2
w/o Alameda St	84.6	85.4	85.7	0.8	0.4
e/o Wilmington Ave	84.4	85.1	85.5	0.7	0.5
w/o Wilmington Ave	84.5	85.2	85.6	0.7	0.5
s/o Carson St	84.4	85.2	85.6	0.8	0.5
n/o Carson St	84.3	85.1	85.5	0.8	0.4
n/o 213th St	84.4	85.1	85.5	0.7	0.5
e/o Avalon Blvd	84.3	84.8	85.3	0.5	0.4
w/o Avalon Blvd	84.5	85.0	85.4	0.5	0.4
SAN GABRIEL AV					
n/o PCH	65	69.6	64.5	4.6	-5.0
TERMINAL ISLAND FWY					
s/o PCH	76.1	75.7	74.3	-0.4	-1.4
n/o PCH	75.3	72.2	70.5	-3.1	-1.8
between Off and loop On ramp at PCH	76.1	75.7	75.7	-0.4	-0.1
s/o PCH off ramp	78	79.6	79.7	1.6	0.2
between Henry Ford Ave and Anaheim St	76.5	78.8	78.4	2.3	-0.3
n/o Ocean Blvd	72.8	76.6	75.0	3.8	-1.6
s/o Henry Ford Ave	74.2	78.0	77.0	3.8	-1.0
e/o Seaside Ave	75	76.9	78.4	1.9	1.5
s/o Willow St	71.5	67.7	64.5	-3.8	-3.2
TERMINAL WAY					
w/o Ferry St	72.4	75.0	74.7	2.6	-0.3
w/o Eaire St	71.9	74.5	74.4	2.6	-0.1
s/o Navy Way	71.7	75.2	74.4	3.5	-0.8
s/o Navy Way	69.4	73.0	72.4	3.6	-0.5
s/o Navy Way	71.7	75.2	74.4	3.5	-0.8
s/o Navy Way	67.9	71.1	70.6	3.2	-0.5
s/o Navy Way	68	71.3	70.7	3.3	-0.5
s/o Navy Way	69.8	73.5	72.7	3.7	-0.7
W 9TH ST					
e/o Caspian Ave	64	65.6	67.3	1.6	1.7
s/o Anaheim St	68.7	67.6	67.2	-1.1	-0.4
e/o Santa Fe Ave	67.8	66.7	66.0	-1.1	-0.6
w/o Caspian Ave	65.4	65.6	67.3	0.2	1.7
n/o Pier B St	60.7	62.1	64.9	1.4	2.8
w/o Santa Fe Ave	69	69.3	69.1	0.3	-0.3
s/o Pier B St	70	72.3	71.9	2.3	-0.4
n/o Pier B St	66.6	70.7	70.6	4.1	0.0
W ANAHEIM ST					
e/o Harbor Ave	69.6	69.2	69.6	-0.4	0.4

e/o Santa Fe Ave	73.1	73.6	73.6	0.5	0.1
w/o Harbor Ave	71.3	71.6	72.0	0.3	0.4
w/o Seabright Ave	71.9	72.4	72.5	0.5	0.1
w/o E I St	69.8	70.3	71.1	0.5	0.8
w/o Figueroa PL	69.2	68.6	68.6	-0.6	0.0
between Wilmington and Neptune Ave	65.5	65.8	65.8	0.3	0.0
between Frigate Ave and Wilmington Blvd	65.8	65.6	65.6	-0.2	0.0
e/o Neptune	65.3	65.7	65.7	0.4	0.0
between Neptune Ave and Fries Ave	65.2	65.5	65.5	0.3	0.0
w/o Frigate Ave	66.1	65.9	65.9	-0.2	0.0
e/o Figueroa PL	69.4	69.3	69.3	-0.1	0.0
between Seabright Ave and Santa Fe Ave	71.6	72.1	72.3	0.5	0.2
between Fries Ave and Avalon Blvd	66.1	66.2	66.2	0.1	0.0
between I-710 SB and NB Ramps	69.8	69.4	69.8	-0.4	0.4
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71.5	72.4	72.6	0.9	0.1
between Hawaiian Ave and Wilmington Blvd	72	72.5	72.7	0.5	0.1
between Neptune Ave and Fries Ave	70.9	71.0	71.2	0.1	0.2
between Figueroa St and Mar Vista Ave	72	72.4	72.6	0.4	0.1
between Fries Ave and Avalon Blvd	72.2	73.3	73.4	1.1	0.1
between Mar Vista Ave and Hawaiian Ave	72	72.5	72.6	0.5	0.1
W I ST					
n/o Anaheim St	62.6	63.2	63.2	0.6	0.0
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	69.1	68.7	68.7	-0.4	0.0
w/o I-110 SB off ramp	69.3	69.0	69.0	-0.3	0.0
between I-710 NB and SB ramps	72.7	74.5	74.2	1.8	-0.4
e/o San Gabriel Ave	73.9	75.4	74.7	1.5	-0.7
between San Gabriel Ave and Santa Fe Ave	73.9	75.3	74.7	1.4	-0.7
e/o Wilmington Blvd	69.3	69.5	69.4	0.2	-0.1
e/o Figueroa St	69.1	69.4	69.3	0.3	-0.1
between Neptune Ave and Avalon Blvd	69.3	69.5	69.4	0.2	-0.1
between Terminal Island Fwy SB and NB ra	72.6	73.7	74.0	1.1	0.3
e/o Santa Fe Ave	73.7	75.2	74.6	1.5	-0.6
e/o Harbor Ave	72.5	74.4	74.0	1.9	-0.4
w/o Termial Island Fwy	72.5	72.4	73.9	-0.1	1.4
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	68.8	71.7	70.9	2.9	-0.8
between Harbor Scenic Dr and Pier J Way	69.5	71.9	70.7	2.4	-1.3
W SEPULVEDA BLVD					
e/o SB I-110 off Ramp	71.1	70.9	70.9	-0.2	0.0
w/o NB I-110 off ramp	71.1	71.0	71.0	-0.1	0.0
w/o Figueroa St	70.2	70.0	70.0	-0.2	0.0

e/o Figueroa St	68	67.2	67.2	-0.8	0.0
between SB and NB I-110 Ramps	71.1	71.0	71.0	-0.1	0.0
W WATER ST					
between Fries Ave and Avalon Blvd	63.3	68.2	68.1	4.9	0.0
W WILLOW ST					
between NB and SB Terminal Island Fwy	71.7	69.3	68.6	-2.4	-0.7
between Terminal Island Fwy and Santa Fe	69.1	69.0	69.0	-0.1	0.0
between Santa Fe Ave and Easy Ave	68.9	68.8	68.8	-0.1	0.0
e/o Easy Ave	70	69.7	69.7	-0.3	0.0
w/o SB I-710 ramps	69	68.7	68.6	-0.3	0.0
w/o NB I-710 on ramp	69.5	68.9	68.8	-0.6	0.0
SAN DIEGO FWY					
SB e/o Wilmington Ave	75	75.0	75.0	0.0	0.0
SB w/o Wilmington Ave	75.3	75.3	75.3	0.0	0.0
SB s/o Carson St	75.2	75.2	75.2	0.0	0.0
NB n/o Carson St	76.3	76.3	76.3	0.0	0.0
NB n/o 213th St	75.8	75.8	75.8	0.0	0.0
NB e/o Avalon Blvd	76.4	76.4	76.4	0.0	0.0
SB e/o Avalon Blvd	75.6	75.6	75.6	0.0	0.0
NB w/o Avalon Blvd	77	77.0	77.0	0.0	0.0
SB e/o Avalon Blvd	75.8	75.8	75.8	0.0	0.0
NB w/o Wilmington Ave	75.7	75.7	75.7	0.0	0.0
NB e/o 218th St	76.3	76.3	76.3	0.0	0.0
SB e/o Avalon Blvd	75.6	75.6	75.6	0.0	0.0
NB s/o Carson St	75.7	75.7	75.7	0.0	0.0
SB n/o Carson St	75.6	75.6	75.6	0.0	0.0
SAN GABRIEL AV					
n/o PCH	66	66.0	66.0	0.0	0.0
TERMINAL ISLAND FWY					
s/o PCH	73.8	73.8	73.8	0.0	0.0
n/o PCH	72.8	72.8	72.8	0.0	0.0
n/o Ocean Blvd	74.6	74.6	74.6	0.0	0.0
NB s/o PCH	74.2	74.2	74.2	0.0	0.0
SB n/o PCH	73.1	73.1	73.1	0.0	0.0
NB between Off and loop On ramp at PCH	74.2	74.2	74.2	0.0	0.0
NB s/o PCH off ramp	77	77.0	77.0	0.0	0.0
SB n/o Anaheim St	72.2	72.2	72.2	0.0	0.0
NB between Henry Ford Ave and Anaheim St	75.6	75.6	75.6	0.0	0.0
NB n/o Ocean Blvd	73.6	73.6	73.6	0.0	0.0
SB n/o Ocean Blvd	72	72.0	72.0	0.0	0.0
s/o Henry Ford Ave	75.1	75.1	75.1	0.0	0.0
SB s/o Henry Ford Ave	74.1	74.1	74.1	0.0	0.0
e/o Seaside Ave	73.5	73.5	73.5	0.0	0.0

SB s/o Anaheim Way	75	75.0	75.0	0.0	0.0
NB s/o Willow St	69.9	69.9	69.9	0.0	0.0
SB s/o PCH on ramp	75	75.0	75.0	0.0	0.0
SB s/o PCH	73.9	73.9	73.9	0.0	0.0
NB n/o PCH	73.2	73.2	73.2	0.0	0.0
SB between loop Off and On ramp at PCH	73.8	73.8	73.8	0.0	0.0
SB s/o Henry Ford Ave	74.1	74.1	74.1	0.0	0.0
s/o Henry Ford Ave	75.2	75.2	75.2	0.0	0.0
TERMINAL WAY					
w/o Ferry St	73.4	73.4	73.4	0.0	0.0
w/o Eaire St	73.3	73.3	73.3	0.0	0.0
s/o Navy Way	73.2	73.2	73.2	0.0	0.0
s/o Navy Way	70.8	70.8	70.8	0.0	0.0
s/o Navy Way	73.2	73.2	73.2	0.0	0.0
s/o Navy Way	69.9	69.9	69.9	0.0	0.0
s/o Navy Way	70	70.0	70.0	0.0	0.0
s/o Navy Way	71.5	71.5	71.5	0.0	0.0
W 9TH ST					
e/o Caspian Ave	64.1	64.1	64.1	0.0	0.0
s/o Anaheim St	67.5	67.5	67.5	0.0	0.0
e/o Santa Fe Ave	65.7	65.7	65.7	0.0	0.0
w/o Caspian Ave	64.1	64.1	64.1	0.0	0.0
n/o Pier B St	62.6	62.6	62.6	0.0	0.0
w/o Santa Fe Ave	68.5	68.5	68.5	0.0	0.0
s/o Pier B St	72.4	72.4	72.4	0.0	0.0
n/o Pier B St	67.8	67.8	67.8	0.0	0.0
W ANAHEIM ST					
e/o Harbor Ave	67.8	67.8	67.8	0.0	0.0
e/o Santa Fe Ave	72.4	72.4	72.4	0.0	0.0
w/o Harbor Ave	70.3	70.3	70.3	0.0	0.0
w/o Seabright Ave	71.2	71.2	71.2	0.0	0.0
w/o E I St	69.2	69.2	69.2	0.0	0.0
w/o Figueroa PL	69.4	69.4	69.4	0.0	0.0
between Wilmington and Neptune Ave	64.4	64.4	64.4	0.0	0.0
between Frigate Ave and Wilmington Blvd	64.6	64.6	64.6	0.0	0.0
e/o Neptune	64.2	64.2	64.2	0.0	0.0
between Neptune Ave and Fries Ave	64.3	64.3	64.3	0.0	0.0
w/o Frigate Ave	64.5	64.5	64.5	0.0	0.0
e/o Figueroa PL	69.4	69.4	69.4	0.0	0.0
between Seabright Ave and Santa Fe Ave	71.1	71.1	71.1	0.0	0.0
between Fries Ave and Avalon Blvd	64.8	64.8	64.8	0.0	0.0
between I-710 SB and NB Ramps	67.9	67.9	67.9	0.0	0.0
W HARRY BRIDGES BLVD					

between Wilmington Blvd and Neptune Ave	72	72.0	72.0	0.0	0.0
between Hawaiian Ave and Wilmington Blvd	71.8	71.8	71.8	0.0	0.0
between Neptune Ave and Fries Ave	71	71.0	71.0	0.0	0.0
between Figueroa St and Mar Vista Ave	71.7	71.7	71.7	0.0	0.0
between Fries Ave and Avalon Blvd	72.5	72.5	72.5	0.0	0.0
between Mar Vista Ave and Hawaiian Ave	71.8	71.8	71.8	0.0	0.0
W I ST					
n/o Anaheim St	64.1	64.1	64.1	0.0	0.0
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	68.1	68.1	68.1	0.0	0.0
w/o I-110 SB off ramp	68.4	68.4	68.4	0.0	0.0
between I-710 NB and SB ramps	72.8	72.8	72.8	0.0	0.0
e/o San Gabriel Ave	74.4	74.4	74.4	0.0	0.0
between San Gabriel Ave and Santa Fe Ave	74.2	74.2	74.2	0.0	0.0
e/o Wilmington Blvd	68.8	68.8	68.8	0.0	0.0
e/o Figueroa St	68.6	68.6	68.6	0.0	0.0
between Neptune Ave and Avalon Blvd	69.3	69.3	69.3	0.0	0.0
between Terminal Island Fwy SB and NB ra	72.5	72.5	72.5	0.0	0.0
e/o Santa Fe Ave	74.6	74.6	74.6	0.0	0.0
e/o Harbor Ave	72.7	72.7	72.7	0.0	0.0
w/o Termial Island Fwy	71.2	71.2	71.2	0.0	0.0
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	71.4	71.4	71.4	0.0	0.0
between Harbor Scenic Dr and Pier J Way	72.3	72.3	72.3	0.0	0.0
W SEPULVEDA BLVD					
e/o SB I-110 off Ramp	68.7	68.7	68.7	0.0	0.0
w/o NB I-110 off ramp	69.4	69.4	69.4	0.0	0.0
w/o Figueroa St	69	69.0	69.0	0.0	0.0
e/o Figueroa St	66.7	66.7	66.7	0.0	0.0
between SB and NB I-110 Ramps	68.8	68.8	68.8	0.0	0.0
W WATER ST					
between Fries Ave and Avalon Blvd	65.4	65.4	65.4	0.0	0.0
W WILLOW ST					
between NB and SB Terminal Island Fwy	70.9	70.9	70.9	0.0	0.0
between Terminal Island Fwy and Santa Fe	67.7	67.7	67.7	0.0	0.0
between Santa Fe Ave and Easy Ave	67.7	67.7	67.7	0.0	0.0
e/o Easy Ave	69.7	69.7	69.7	0.0	0.0
w/o SB I-710 ramps	66.9	66.9	66.9	0.0	0.0
w/o NB I-710 on ramp	67.6	67.6	67.6	0.0	0.0

None of the noise-sensitive uses that would be affected by operation of the proposed Project are in the City of Los Angeles. Roadways in the City of Los Angeles would not experience project-related increases in noise exceeding 3 dBA. Future cumulative traffic noise levels would result in noise exceeding 3 dBA; however, none of the increases would occur within the City of Los Angeles.

Sleep Disturbance

Table F1-21 summarizes the operational Project train horn SEL at nearby residences and an assessment of sleep disturbance. Interior SELs with windows closed with the train horn would be as high as 64.0, 65.9, and 64.0 dB at the East I St, Mauretania St, and Cruces St residences, respectively. Based on the FICAN 1997 curve, approximately 5% of the exposed population at the residences at 1919 East I Street, 1710 Mauretania Street, and 1619 Cruces Street would be expected to be awakened by train horn soundings associated with the proposed Project. Interior SELs with windows open from train horn soundings would be as high as 72.0, 73.9 and 72.0 dB at the East I St, Mauretania St, and Cruces St residences, respectively. When compared with the FICAN curve, approximately 7%, 8%, and 7% of the exposed population at the residences at 1919 East I Street, 1710 Mauretania Street, and 1619 Cruces Street, respectively, would be expected to be awakened by train horn soundings associated with the proposed Project. Single event awakenings would occur at a frequency below 10%.

Table F1-21. Summary of the Predicted SCIG Train Horn SEL at Nearby Residences and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Measured Ambient Exterior Leq, dBA	Ambient Interior Leq, dBA[1]	Predicted SCIG Train Horn Exterior SEL, dBA	Predicted SCIG Train Horn Interior SEL w/ Windows Closed, dBA [1]	Approximate Percentage of Exposed Population Expected to be Awakened [2]	Predicted SCIG Train Horn Interior SEL w/ Windows Open, dBA[3]	Approximate Percentage of Exposed Population Expected to be Awakened [2]
R28	Residence at 1919 East I St	Day: 58.6 – 81.1	Day: 38.6 – 61.1	84.0	64.0	5%	72.0	7%
R29	Residence at 1710 Mauretania St	Day: 66.2 – 70.4 Lowest Night: 60.6	Day: 46.2 – 50.4 Lowest Night: 40.6	85.9	65.9	5%	73.9	8%
R32	Residence at 1619 Cruces St	Day: 64.9 – 67.2 Lowest Night: 59.4	Day: 44.9 – 47.2 Lowest Night: 39.4	84.0	64.0	5%	72.0	7%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
2 Based on FICAN 1997 Sleep Disturbance Curve.
3 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

School Classroom Speech Intelligibility

There are no schools located in the City of Los Angeles within the immediate vicinity of the Project Site. There would be no construction and operations related noise that could disrupt speech intelligibility in classrooms.

4.3 Predicted Noise Levels – City of Long Beach

Construction

The analysis of construction-related noise levels in the City of Long Beach included data from twelve different receptor locations: the back yard of a residence at 2789 Webster Street, the Buddhist temple at Willow and Webster streets, the playground of the Hudson Elementary School, Hudson Park, the building setback of Cabrillo High School, the Cabrillo Child Development Center, Bethune School, the Century Villages at Cabrillo, Cabrillo Park, the playground of Stephens Middle School, Webster School, and the Mambo Sound & Recording Studio. The predicted construction noise levels are presented in Table F1-22. This data represents the worst-case daytime construction noise levels expected, assuming all construction elements occur simultaneously.

Exterior daytime construction noise levels (L50) from the proposed Project would be expected to be as high as 63.5, 65.8, 70.2, 70.4, 57.8, 70.9, 68.8, 62.9, 66.1, and 57.5, at the Webster residence, Buddhist Temple, Hudson School, Hudson Park, Cabrillo High School, Cabrillo Child Development Center, Bethune School, the Century Villages at Cabrillo, Cabrillo Park, and Stephens Middle School, respectively. The construction noise levels would exceed ambient noise levels by more than 3 dB at each of these receptor locations. The future daytime construction noise at the Webster School and at Mambo Sound & Recording Studio would be 47.0 dBA and 55.2 dBA, respectively. Construction noise levels at these receivers would be below ambient noise levels and maximum noise levels allowed by the Long Beach Municipal Code.

Nighttime construction noise levels from the PCH grade separation would be expected to be 33.3, 36.3, 50.7, and 47.6 dBA at the Webster residence, Buddhist Temple, Century Villages at Cabrillo, and Mambo Sound & Recording Studio, respectively. Table F1-23 summarizes the nighttime construction noise levels. The increase in noise would not be expected to be more than 3 dB above ambient levels at any of the receptors. Nighttime construction noise was not evaluated for the nearby school and park uses because they are not expected to be operating during the nighttime hours.

Table F1-22. Summary of the Predicted Daytime Construction Noise Levels for SCIG Construction

Receptor Number	*Receptor Location*	*Measured Ambient Noise Level L50, dBA*	*Approximate Distance to Nearest Construction Area, feet*	*Predicted Daytime Construction Noise Level – Worst Case April 2013, dBA*	*Predicted Daytime Construction Noise Level – Worst Case Month 2013, dBA*	*City of Long Beach Daytime Noise Ordinance, Exterior Standard, L50, dBA*[1]
R1	Residence at 2789 Webster – rear yard	Day: 45.2 - 51.6 Night: 37.7 - 46.3	275	61.5	63.5	50
R2	Buddhist Temple at Willow and Webster	Day: 58.6 - 60.2 Night: 46.1 - 57.4	375	65.7	65.8	50
R3	Hudson Elementary School - playground	Day: 56.3 - 64.1	300	65.4 – 70.1	65.5 - 70.2	50
R4	Hudson Park	Day: 62.4 – 64.3	300	70.3	70.4	50
R5	Cabrillo High School – building setback	Day: 52.6 - 58.1	1,700	57.0	57.8	50
R6	Cabrillo Child Development Center	Day: 61.5 – 65.3	300	70.0	70.9	50
R7	Bethune School	Day: 61.5 – 65.3	300	68.8	68.8	50
R7A	Century Villages at Cabrillo	Day: 59.2 – 63.2 Night: 51.1 - 58.6	500	62.9	62.9	50
R7B	Cabrillo Park	Day: 60.2 – 65.2	400	66.1	66.1	50
R30	Stephens Middle School - playground	Day: 52.0 – 64.2	600	57.5	57.5	50
R31	Webster School	Day: 48.3 – 58.0	2,750	47.0	47.0	50
R34	Mambo Sound & Recording Studio	Day: 62.8 – 68.4 Night: 58.0 – 63.4	1,500	55.2	55.2	50

Notes:
[1] Noise standard for a cumulative period of 30 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased by 5 dB increments to encompass or reflect ambient level.

Table F1-23. Summary of the Predicted Nighttime Construction Noise Levels for SCIG Construction

Receptor Number	*Receptor Location*	*Predicted Nighttime Exterior Construction Noise Level – Worst Case 2013, dBA*	*Measured Nighttime Ambient Noise Level, dBA* [1]	*Predicted Increase in Ambient Noise Level with Nighttime Construction, dB*	*City of Long Beach Noise Ordinance, Nighttime Exterior Standard, L50, dBA* [2]
R1	Residence at 2789 Webster – rear yard	33.3	37.7	+1.3	45
R2	Buddhist Temple at Willow and Webster	36.3	46.1	+0.4	45
R7A	Century Villages at Cabrillo	50.7	51.1	+2.8	45
R34	Mambo Sound & Recording Studio	47.6	58.0	+0.4	45

[1] – Lowest Nighttime Ambient Noise Level, L50.
[2] –Nighttime noise standard for a cumulative period of 30 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods.

Classroom Interior Construction Noise Levels

Future interior noise levels within classrooms were analyzed to evaluate Project construction on school facilities (impacts to students' ability to study). Future interior construction noise levels were calculated by subtracting the measured noise reduction from the predicted exterior construction noise levels from the Project. As summarized in Table F1-24, the future interior classroom construction noise would be 42.7 dBA at Bethune School, 42.3 dBA at Cabrillo Child Development Center, and 13.4 dBA at Cabrillo High School. At Hudson School, the future interior construction noise would be 32.5 dBA, while at Stephens Middle School; the interior construction noise level would be 19.2 dBA. Lastly, at Webster School, the interior construction noise level would be 8.4 dBA. Interior construction noise levels with ambient noise would be below the LBMC allowable daytime interior noise standard of 45 dBA at all educational receivers, except for at the Cabrillo Child Development Center. The future interior construction noise level at the Cabrillo Child Development Center would be 46.1 dBA and would exceed the LBMC interior threshold. When compared to existing ambient noise levels, future interior construction noise levels would be below existing ambient noise levels in the classrooms with the exception of Bethune School. At this location, a greater than 5 dB increase would be experienced during the heaviest periods of construction activity (although noise levels would not exceed the LBMC 45 dBA noise standard).

Table F1-24. Summary of the Project's Construction Noise Levels within Classrooms

Receiver Number	*Location*	*Description*	*Future Exterior Construction Noise Level,L50, dBA*	*Noise Reduction, dB*	*Future Interior Construction Noise Level, L50, dBA*	*Ambient Interior Noise Level, L50, dBA*	*Future Interior Construction Noise Level with Ambient, L50, dBA*	*Predicted Increase in Ambient Noise Level with Construction Noise, dB*
R3	Hudson School	Classroom 52	65.5	33	32.5	36.9	38.2	1.3
R5	Cabrillo High School	Classroom 1128	57.8	44.4	13.4	32.7	32.8	0.1
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	70.9	28.6	42.3	43.7	46.1	2.4
R7	Bethune School	Classroom 102	68.8	26.1	42.7	38.8	44.2	5.4
R30	Stephens Middle School	Classroom PC2	57.5	38.3	19.2	31.4	31.7	0.3
R31	Webster School	Classroom B-48	47.0	38.6	8.4	31.9	31.9	0.0

On-Site and Rail Corridor Operations

As previously discussed in NOI-3 and summarized in Table F1-16, on-site operational noise at the proposed Project and alternate business location facilities would consist of truck activity, maintenance, train activity, and container loading and unloading operations. On-site SCIG operations would generate noise levels ranging from 59 to 95 dBA at a distance of 100 feet from the source. Future rail movements along the San Pedro Branch line would include diesel engine noise, train horns, and railcar noises. According to BNSF, train horn soundings are not expected to occur on the San Pedro Branch line due to the Project's design features. As previously summarized in Table F1-17, the Predicted Future CNEL for San Pedro Branch Line operations would range from 48.3 to 57.3 dBA at the nearest sensitive receptor locations.

Predicted daytime Project on-site and rail corridor operational noise levels at sensitive receivers (Table F1-25) would result in an increase of 3 dB or greater over existing measured ambient noise levels at the residence at 2789 Webster (R1), and at Cabrillo High School (R5). At the residence on Webster, the predicted noise level of 54.8 dBA would consistently exceed the existing ambient noise levels by 3 dBA or greater. Project operations noise would reach 52.6 dBA at Cabrillo High School and lead to an increase in ambient noise levels of 3 dBA during the quietest daytime periods. The remaining ten receiver locations would experience predicted daytime operational noise levels either lower than the existing ambient levels or within a 3 dBA increase.

Nighttime on-site and rail corridor operational noise levels would result in an increase of 3 dB or greater over existing measured ambient noise levels at the residence at 2789 Webster (R1), at the Buddhist Temple (R2) and at the Century Villages at Cabrillo (R7A). At the residence on Webster, the predicted noise level of 54.8 dBA would consistently exceed the nighttime ambient noise level range of 37.7 to 46.3 dBA by 3 dB or more. The nighttime operational noise level at the Buddhist Temple would result in an increase of at least 3 dB over the ambient noise levels during quieter nighttime periods. At the Century Villages at Cabrillo, future nighttime operational noise levels would reach 56.0 dBA and would occasionally result in an ambient level increase over 3 dBA. The nighttime noise increases that would be experienced at the Webster residence, Buddhist Temple and Century Villages at Cabrillo would occur when normal "full blown" operations coincide with the low background noise. This condition is not expected to occur on a daily basis and for more than one hour in any given 24-hour period. The remaining nine receiver locations would experience predicted operational noise levels either lower than the existing nighttime ambient levels or within a 3 dBA increase.

Table F1-25. Predicted Operational Noise Levels for the Proposed Project

Receptor Number	*Receptor Location*	*Predicted Operational Noise Level –Year 2023,L50, dBA**	*Measured Ambient Noise Level, L50, dBA[1]*	*Predicted Largest Increase in Ambient Noise Level with Operations Noise, dB*	*City of Long Beach Noise Ordinance, Exterior Standard, L50, Daytime/Nighttime dBA[2]*
R1	Residence at 2789 Webster – rear yard	54.8	Day: 45.2 - 51.6 Night: 37.7 - 46.3	Day +10.1 Night +17.2	Day 50 Night 45
R2	Buddhist Temple at Willow and Webster	49.5	Day: 58.6 - 60.2 Night: 46.1 - 57.4	Day +0.5 Night +5.0	Day 50 Night 45
R3	Hudson Elementary School - playground	54.3	Day: 56.3 - 64.1	Day +2.1	Day 50
R4	Hudson Park	55.4	Day: 62.4 – 64.3	Day +0.8	Day 50
R5	Cabrillo High School – building setback	52.6	Day: 52.6 - 58.1	Day +3.0	Day 50
R6	Cabrillo Child Development Center	55.7	Day: 61.5 – 65.3	Day +1.0	Day 50
R7	Bethune School	55.8	Day: 61.5 – 65.3	Day +1.0	Day 50
R7A	Century Villages at Cabrillo	56.0	Day: 59.2 – 63.2 Night: 51.1 - 58.6	Day +1.7 Night +6.1	Day 50 Night 45
R7B	Cabrillo Park	56.1	Day: 60.2 – 65.2	Day +1.4	Day 50
R30	Stephens Middle School - playground	51.3	Day: 52.0 – 64.2	Day +2.7	Day 50
R31	Webster School	46.4	Day: 48.3 – 58.0	Day +2.2	Day 50
R34	Mambo Sound & Recording Studio	49.4	Day: 62.8 – 68.4 Night: 58.0 – 63.4	Day +0.2 Night +0.6	Day 50 Night 45

Notes:
[1] Refer to Table F1-4, Summary of Ambient Noise Measurement Data
[2] Noise standard for a cumulative period of 30 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased by 5 dB increments to encompass or reflect ambient level.
* Includes alternate business locations

Existing Plus Project Traffic Noise Levels

Table F1-18 summarizes the predicted roadway traffic noise levels once the proposed Project is in full operation. Portions of the following roadways in the City of Long Beach include noise-sensitive land uses that would be expected to experience future traffic noise levels above 70 CNEL: E. Anaheim St., W. Pacific Coast Highway,

Long Beach Freeway and the Terminal Island Freeway. Traffic noise levels above 70 CNEL are considered incompatible with noise guidelines.

The Project's predicted noise level increase over existing levels is summarized in Table F1-19. Roadways in Long Beach with noise-sensitive land uses would not experience a Project-related increase in traffic noise level exceeding 1 dB except at segments of W Willow St. The majority of roadways within the City would experience a traffic noise decrease as a result of the Project because the Project would reduce truck traffic onroadways north of the Project site.

Table F1-20 shows the predicted cumulative noise level increase over existing levels and the Project's contribution upon build out (i.e., in 2023). Roadways in Long Beach with noise-sensitive land uses would not experience a cumulative noise level increase over existing noise levels of 3 dBA or greater.

Classroom Interior Operational Noise Levels

Interior noise levels within classrooms were analyzed to evaluate the effect of the proposed Project's on-site and rail corridor operational noise on school facilities. Future interior noise levels were calculated by subtracting the measured noise reduction from the predicted exterior operations noise levels from the proposed Project. As summarized in Table F1-26, the interior classroom noise levels with proposed project operations would be 29.7 dBA at Bethune School, 27.1 dBA at Cabrillo Child Development Center, and 8.2 dBA at Cabrillo High School. At Hudson School, the future interior operational noise would be as high as 21.3 dBA, while at Stephens Middle School, the interior operational noise level would be 13.0 dBA. At Webster School, the interior operational noise level would be 7.8 dBA. Future operational noise levels would be below the LBMC allowable interior noise standard of 45 dBA. When compared to existing ambient noise levels, future interior operations noise levels would be below existing noise levels within the classrooms.

Table F1-26. Summary of the Proposed Project's Operational Noise Levels within Classrooms

Receiver Number	*Location*	*Description*	*Future Exterior Operations Noise Level, dBA*	*Noise Reduction, dB*	*Future Interior Operations Noise Level, dBA*	*Measured Ambient Interior Noise Level, dBA*	*Existing Ambient Plus Project Interior Noise Levels, dBA*	*Increase in Ambient Interior Noise Level with Project Contribution, dBA*	*City of Long Beach Noise Ordinance Interior Noise Level for Schools, L8, dBA*[1]
R3	Hudson School	Classroom 52	54.3	33	21.3	36.9	37.0	0	45
R5	Cabrillo High School	Classroom 1128	52.6	44.4	8.2	32.7	32.7	0	45
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	55.7	28.6	27.1	43.7	43.8	0	45
R7	Bethune School	Classroom 102	55.8	26.1	29.7	38.8	39.3	0.5	45
R30	Stephens Middle School	Classroom PC2	51.3	38.3	13.0	31.4	31.5	0	45
R31	Webster School	Classroom B-48	46.4	38.6	7.8	31.9	31.9	0	45

Notes:
[1] Noise standard for a cumulative period of 5 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased to reflect ambient level.
* Includes alternate business locations

Construction Vibration

Construction operations involving heavy equipment can generate high vibration levels that can affect sensitive receptors such as the nearby schools and residences. A site survey was conducted to determine if there were nonresidential vibration sensitive receptors (microelectronics firms, recording studios, research laboratories, etc. that employ vibration sensitive equipment) in the vicinity of the Project site and associated haul routes. Mambo Sound & Recording Studio, located southeast of the Project site at 2200 W Esther St., was identified as a vibration sensitive receptor.A technology park was identified approximately 1,100 feet east of the Project site, well enough away so that on site generated vibration would not affect these office uses. In addition, the construction haul route would be expected to be primarily on Pacific Coast Highway to and from the Project site. Truck vibration would not be expected to exceed existing vibration generated by truck traffic on Pacific Coast Highway; thus, no increase in vibration would be expected. Table F1-27 summarizes typical construction vibration levels as reported by the FTA. Construction vibration can range between 58 to 112 VdB when measured at a distance of 25 feet from the source. Table F1-28 summarizes the future construction vibration. The future maximum vibration level at Stephens Middle School, designated location V1, would be as high as 63 VdB, while existing ambient levels are 51.6 to 64.3 VdB. The predicted vibration level at location V2, Hudson Elementary School, would be as high as 72 VdB and above the existing ambient levels of 55.9 to 69.0 VdB. Future vibration levels at the Cabrillo Child Development Center and Bethune School would be 72 VdB at both locations. Their respective existing ambient levels are 58.9 to 75.5 VdB and 62.6 to 79.4 VdB. Predicted vibration levels from Project construction would occasionally exceed existing ambient vibration measurements at Receivers V1 to V4 but would be clearly below the FTA vibration impact criteria of 75 VdB. At Mambo Sound and Recording Studio (V13), the predicted construction vibration level would reach upwards of 49 VdB; however, this would be well below the FTA impact criteria of 65 VdB for sensitive buildings and would not exceed the existing ambient velocity levels ranging from 86.9 to 106.2 VdB.

Locations V5 through V9 are situated away from the Project Site (4,200-17,500 feet); thus, future vibration levels from construction, ranging from 19 VdB to 37 VdB, would be significantly lower than the existing ambient vibration levels. The predominant source of existing vibration, as identified in the existing conditions sections, is heavy truck movement on existing roadways and haul routes. Although the number of vibration events would increase accordingly with Project truck movements, future vibration levels from Project construction operations would not be expected to exceed existing levels.

Table F1-27. Vibration Source Levels for Construction Equipment

Equipment	Approximate Velocity Level @ 25 ft, VdB Re: 1 micro inch/sec
Pile Driver Impact typical range	112
Pile Driver Sonic typical range	93
Clam Shovel Drop	94
Hydromill in Soil	66
Vibratory Roller	94
Hoe Ram	87
Large Bulldozer	87
Caisson Drilling	87
Loaded Trucks	86
Jackhammer	79
Small Bulldozer	58

Source: FTA, 2006

Table F1-28. Predicted Construction Vibration Levels

Location	*Description*	Distance to Nearest Construction Area, ft	Range of Predicted Construction Vibration Levels, VdB	*Existing Ambient Velocity Level, VdB Lmax, VdB*		*FTA Impact Criteria, VdB*
				Low	*High*	
V1	Stephens Middle School Classroom PC2	600	17 - 63	51.6	64.3	75
V2	Hudson Elementary School Playground	300	26 - 72	55.9	69.0	75
V3	Cabrillo Child Development Center	300	26 - 72	58.9	75.5	75
V4	Bethune School	300	26 - 72	62.6	79.4	75
V13	Mambo Sound & Recording Studio	1.500	9 - 49	86.9	106.2	65

Operational Vibration

Trains from the proposed Project would use a portion of the San Pedro Branch Line during daily operations. Future vibration levels from Project rail operations are summarized in Table F1-29.

Receiver locations V1 through V4 are in close proximity with the San Pedro Branch line (approximately 300 to 600 feet), and could be affected by ground-borne vibration from future train movements. The future maximum vibration level at Stephens Middle School, designated location V1, would be 54.8 VdB, while existing ambient levels are 51.6 to 64.3 VdB. The predicted vibration level at location V2, Hudson Elementary School, would be 55.4 VdB and below the existing ambient levels of 55.9 to 69.0 VdB. Future vibration levels at the Cabrillo Child Development Center and Bethune School would be 58.2 VdB and 59.2 VdB, respectively. Their respective existing ambient levels are 58.9 to 75.5 VdB and 62.6 to 79.4 VdB. At the

Mambo Sound & Recording Studio, the predicted velocity level from Project trains would be 58.3 VdB, well below the existing maximum vibration levels ranging from 86.9 to 106.2 VdB. Predicted vibration levels from Project train movements would not exceed existing ambient vibration measurements at Receivers V1-V4 and V13 and would be clearly below the FTA vibration impact criteria.

Locations V5 through V9 are situated away from the San Pedro Branch line (4,200-17,500 feet); thus, future vibration levels from Project train movements, ranging from 24 VdB to 36 VdB, would be significantly lower than the existing ambient vibration levels. The predominant source of existing vibration, as identified in the existing conditions sections, is heavy truck movement on existing roadways and haul routes. Although the number of vibration events would increase accordingly with Project truck movements, future vibration levels from Project operations would not be expected to exceed existing levels.

Table F1-29. Predicted Future Train Vibration on the San Pedro Branch Line

Receiver Location	*Description*	*Predicted Velocity Level from Project Train Movements, VdB*	*Existing Ambient Velocity Level, Lmax, VdB*		*FTA Impact Criteria, VdB*
			Low	*High*	
V1	Stephens Middle School Classroom	54.8	51.6	64.3	75
V2	Hudson Elementary School Playground	55.4	55.9	69.0	75
V3	Cabrillo Child Development Center	58.2	58.9	75.5	75
V4	Bethune School	59.2	62.6	79.4	75
V13	Mambo Sound & Recording Studio	58.3	86.9	106.2	65

Sleep Disturbance

Nighttime construction activity also has the potential to cause sleep disturbances at the nearest residential/sensitive receptors. Nighttime construction noise was analyzed by assuming the worst case hour during the nighttime. The potential for sleep disturbance was assessed by comparing the construction related nighttime interior noise levels with the FICAN 1997 sleep disturbance curves. Interior SELs with windows closed from nighttime construction activity would be as high as 48.9, 51.9 and 66.3 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, approximately 2%, 3% and 7% of exposed population at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively, would be expected to be awakened due to

the highest levels of construction activity. Interior SELs with windows open during nighttime construction activity would be as high as 56.9, 59.9 and 74.3 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, approximately 3%, 4% and 8% of exposed population at each respective location would be expected to be awakened due to the highest levels of construction activity. For periods of less intensive construction activity, the percentage of awakenings would be lower. Table F1-30 summarizes the nighttime construction noise SEL and sleep disturbance for these receptors. Single event awakenings would occur at a frequency below 10%.

Table F1-31 summarizes the predicted Project train horn SEL at nearby residences and an assessment of sleep disturbance. Interior SELs with windows closed from the SCIG train horns would be as high as 25.1, 27.2 and 32.5 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, none of the exposed population at these residences would be expected to be awakened due to Project train horns. Interior SELs with windows open from Project-related train horns would be 33.1, 35.2 and 40.5 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, none of the exposed population at the Webster residence and Buddhist Temple would be expected to be awakened due to train horns, and only 1% of residents at the Century Villages at Cabrillo would experience awakenings. Single event awakenings would occur at a frequency below 10%.

Table F1-30. Summary of the Predicted Nighttime Construction Noise SEL for SCIG Construction and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Predicted Nighttime Exterior Construction Noise Level – Worst Case 2013, dBA	Predicted Nighttime Exterior SEL – Worst Case 2013, dBA [1]	Predicted Nighttime Interior SEL w/ Windows Closed – Worst Case 2013, dBA [2]	Approximate Percentage of Exposed Population Expected to be Awakened [3]	Predicted Nighttime Interior SEL w/ Windows Open – Worst Case 2013, dBA [4]	Approximate Percentage of Exposed Population Expected to be Awakened [3]
R1	Residence at 2789 Webster – rear yard	33.3	68.9	48.9	2%	56.9	3%
R2	Buddhist Temple at Willow and Webster	36.3	71.9	51.9	3%	59.9	4%
R7A	Century Villages at Cabrillo	50.7	86.3	66.3	7%	74.3	8%

1 SEL is calculated from Leq+35.6, dB.
2 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
3 Based on FICAN 1997 Sleep Disturbance Curve.
4 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

Table F1-31. Summary of the Predicted SCIG Train Horn SEL at Nearby Residences and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Predicted SCIG Train Horn Exterior SEL, dB	Predicted SCIG Train Horn Interior SEL w/ Windows Closed, dBA [1]	Approximate Percentage of Exposed Population Expected to be Awakened [2]	Predicted SCIG Train Horn Interior SEL w/ Windows Open, dBA [3]	Approximate Percentage of Exposed Population Expected to be Awakened [2]
R1	Residence at 2789 Webster – rear yard	45.1	25.1	0%	33.1	0%
R2	Buddhist Temple at Willow and Webster	47.2	27.2	0%	35.2	0%
R7A	Century Villages at Cabrillo	52.5	32.5	0%	40.5	1%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
2 Based on FICAN 1997 Sleep Disturbance Curve.
3 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

School Classroom Speech Intelligibility

Construction noise experienced within the classrooms has the potential to interfere with speech intelligibility between the teacher and the student. Table F1-32 summarizes the interior construction noise within classrooms and the speech intelligibility between a teacher and student separated by 20 feet. The analysis and evaluation considers both a normal and raised voice speech level between a teacher and student. Future interior construction noise would be as high as 38.2, 32.8, 46.1, 44.2, 31.7 and 31.9 dBA at Hudson School, Cabrillo High School, Cabrillo Child Development Center, Bethune School, Stephens Middle School, and Webster School, respectively. When compared with the USEPA curve for speech intelligibility, there would be greater than 95% normal voice satisfactory conversation speech intelligibility at all locations. Similarly, there would be greater than 95% raised voice satisfactory conversation speech intelligibility at all locations. When the distance between the teacher and student is less than 20 feet, speech intelligibility would be expected to be even greater.

The Project's on-site and rail corridor operational noise experienced within the classrooms has the potential to interfere with speech intelligibility between the teacher and the student. Table F1-33 summarizes the interior operations noise levels within classrooms and the speech intelligibility between a teacher and student separated by 20 feet. The analysis and evaluation considers both a normal and raised voice speech level between a teacher and student. Future interior operations noise levels would be as high as 37.0, 32.7, 43.8, 39.3, 31.5 and 31.9 dBA at Hudson School, Cabrillo High School, Cabrillo Child Development Center, Bethune School, Stephens Middle School, and Webster School, respectively. When compared with the USEPA curve for speech intelligibility, there would be greater than 95% normal voice satisfactory conversation speech intelligibility at all locations. Likewise, there would be greater than 95% raised voice satisfactory conversation speech intelligibility at all locations. When the distance between the teacher and student is less than 20 feet, speech intelligibility would be expected to be even greater.

Project train horn soundings near the intersection of the Alameda Corridor and Pacific Coast Highway also have the potential to affect speech intelligibility within classrooms. Table F1-34 summarizes the interior train horn noise levels within classrooms and the speech intelligibility between a teacher and student separated by 20 feet. The analysis and assessment considers both a normal and raised voice speech level between a teacher and student. Future interior train horn noise levels would be as high as 17.1, 5.4, 23.9, 26.6, 7.3 and 1.5 dB at Hudson School, Cabrillo High School, Cabrillo Child Development Center, Bethune School, Stephens Middle School, and Webster School, respectively. When compared with the USEPA curve for speech intelligibility, there would be greater than 95% normal and raised voice satisfactory conversation speech intelligibility at all classroom locations.

Table F1-32. Summary of the Predicted Daytime Construction Noise within Classrooms and Speech Intelligibility Assessment.

Receiver Number	Location	Description	Ambient Interior Noise Level, L50, dBA	Predicted Future Interior Construction Noise Level with Ambient, L50, dBA[1]	Normal Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]	Raised Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]
R3	Hudson School	Classroom 52	36.9	38.2	Greater than 95%	Greater than 95%
R5	Cabrillo High School	Classroom 1128	32.7	32.8	Greater than 95%	Greater than 95%
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	43.7	46.1	Greater than 95%	Greater than 95%
R7	Bethune School	Classroom 102	38.8	44.2	Greater than 95%	Greater than 95%
R30	Stephens Middle School	Classroom PC2	31.4	31.7	Greater than 95%	Greater than 95%
R31	Webster School	Classroom B-48	31.9	31.9	Greater than 95%	Greater than 95%

1 Data from Table F1-22.
2 Based on FICAN – USEPA Speech Intelligibility Curve, 1974.

Table F1-33. Summary of the Project's Operational Noise within Classrooms and Speech Intelligibility Assessment.

Receiver Number	Location	Description	Ambient Interior Noise Level, dBA	Existing Ambient Plus Project Interior Noise Levels, dBA[1]	Normal Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]	Raised Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]
R3	Hudson School	Classroom 52	36.9	37.0	Greater than 95%	Greater than 95%
R5	Cabrillo High School	Classroom 1128	32.7	32.7	Greater than 95%	Greater than 95%
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	43.7	43.8	Greater than 95%	Greater than 95%
R7	Bethune School	Classroom 102	38.8	39.3	Greater than 95%	Greater than 95%
R30	Stephens Middle School	Classroom PC2	31.4	31.5	Greater than 95%	Greater than 95%
R31	Webster School	Classroom B-48	31.9	31.9	Greater than 95%	Greater than 95%

Notes:
1 Data from Table F1-25
2 Based on FICAN – USEPA Speech Intelligibility Curve, 1974.
Noise standard for a cumulative period of 5 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased to reflect ambient level.
* Includes alternate business locations

Table F1-34. Predicted SCIG Train Horn SEL within Classrooms and Speech Intelligibility Assessment.

Receiver Number	Location	Description	Predicted SCIG Train Horn Exterior Noise Level, dBA	Measured Exterior to Interior Noise Reduction, dB	Predicted SCIG Train Horn Interior Noise Level, dBA [1]	Normal Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]	Raised Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]
R3	Hudson School	Classroom 52	50.1	33	17.1	Greater than 95%	Greater than 95%
R5	Cabrillo High School	Classroom 1128	49.8	44.4	5.4	Greater than 95%	Greater than 95%
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	52.5	28.6	23.9	Greater than 95%	Greater than 95%
R7	Bethune School	Classroom 102	52.7	26.1	26.6	Greater than 95%	Greater than 95%
R30	Stephens Middle School	Classroom PC2	45.6	38.3	7.3	Greater than 95%	Greater than 95%
R31	Webster School	Classroom B-48	40.1	38.6	1.5	Greater than 95%	Greater than 95%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors.
2 Based on FICAN – USEPA Speech Intelligibility Curve, 1974.

4.4 Predicted Noise Levels – City of Carson

Construction and Operations Noise

The nearest residential receptor in the City of Carson (R33) is located over 7,000 ft from the SCIG site. Because of the distance to the nearest construction areas, barrier effects of intervening topography, and the high ambient background noise, construction noise is expected to be attenuated to below ambient levels.

Receptor R33 is located approximately 200 feet east of the Alameda Corridor and directly east of Alameda Street. This location is exposed to significant noise levels from train movements, automobile traffic and heavy truck operations. Considering that the project would generate eight inbound and outbound trains per day, the increase in CNEL from the Project's trains on the Alameda Corridor and at the Salmon Avenue residence (R33) would be less than 1 dB.

Train horn sounding can produce maximum sound levels as high as 107 dBA at a distance of 100 ft and 90 dBA at a distance of 500 feet. The project would generate eight daily inbound and outbound trains with approximately 16 train horn soundings per day occurring near the intersection of the Alameda Corridor and Pacific Coast Highway. This is approximately 11,000 ft south of the Salmon Avenue residence. Train horn soundings from the project are not expected to occur more than once in any one hour period. Train horn soundings are estimated to be approximately 63 dBA at this residence. When compared to the number of existing train operations, horn soundings and ambient background noise, future locomotive horn noise from SCIG train traffic, although still discernible, would not be expected to result in a CNEL increase greater than 3 dB.

Construction and Operations Vibration

Because the Project site is located over 7,000 ft south of the Salmon Avenue residence (R33), daytime and nighttime construction vibration would not be expected to approach ambient noise levels. A site survey was conducted to determine if there were nonresidential vibration sensitive receptors (microelectronics firms, recording studios, research laboratories, etc. that employ vibration sensitive equipment) in the vicinity of the Project site and rail line. It was determined that no such receptors were present. In addition, the construction haul route would be expected to be primarily on Pacific Coast Highway outside of the City of Carson. Truck vibration would not be expected to exceed existing vibration generated by existing trucks on Pacific Coast Highway; thus, no increase in vibration would be expected.

Project train movements on the Alameda Corridor would pass by the Salmon Residence, within approximately 200 feet of the property boundary. Existing vibration levels range from 53 to 68.8 VdB at this location. Future train vibration would not be expected to exceed existing vibration levels from the Alameda Corridor and Alameda St. Future Project train vibration at the Salmon Residence would be less than the FTA criteria of 75 VdB.

Sleep Disturbance

Table F1-35 summarizes the predicted Project train horn SEL at the nearby residence and an evaluation of sleep disturbance. Interior SELs with windows closed from the train horn noise experienced at 21843 Salmon Avenue would be as high as 43.0. When assessed with the FICAN curve, approximately 1% of exposed population at the residence would be expected to be awakened due to the highest levels of construction activity. Interior train horn SELs with windows open at 21843 Salmon Avenue would be as high as 51.0. When assessed with the FICAN curve, approximately 2% of exposed population at the residence would be expected to be awakened due to the highest levels of construction activity. Single event awakenings would occur at a frequency below 10%.

Table F1-35. Summary of the Predicted SCIG Train Horn SEL at Nearby Carson Residences and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Predicted SCIG Train Horn Exterior SEL, dBA	Predicted SCIG Train Horn Interior SEL w/ Windows Closed, dBA[1]	Approximate Percentage of Exposed Population Expected to be Awakened [2]	Predicted SCIG Train Horn Interior SEL w/ Windows Open, dBA[3]	Approximate Percentage of Exposed Population Expected to be Awakened [2]
R33	Residence at 21843 Salmon Avenue	63.0	43.0	1%	51.0	2%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
2 Based on FICAN 1997 Sleep Disturbance Curve.
3 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

School Classroom Speech Intelligibility

There are no schools located in the City of Carson within the immediate vicinity of the Project Site. There would be no construction and operations related noise that could affect speech intelligibility in classrooms.

5 Alternatives

5.1 Alternative 2: Reduced Project Alternative

The reduced project alternative would consist of the same on-site operations sources and railway sources but would decrease the daily volume of truck and rail activity. An estimated 4,035 truck trips would facilitate the transport of 3,034 containers each day in the proposed alternative. Additionally, only six inbound and six outbound trains would be processed daily.

5.1.1 Predicted Noise Levels – City of Los Angeles

Construction of the proposed Project would occur over approximately 24 months in the following areas:

1. The railyard area including the north lead tracks and railroad bridge over Sepulveda Blvd;
2. Pacific Coast Highway (PCH) grade separation and interchange;
3. The south lead tracks area along the Long Beach Lead and Alameda Corridor, including the Dominguez Channel Bridge.
   Alternate business locations.

Construction would include demolition of existing structures; earthwork including excavating, repositioning, and compacting; drainage and utility construction/relocation; fine grading and sub-grade preparation; paving; construction of new buildings; track work and signal installation; assembly of the loading cranes; modifications to rail and road bridges; landscaping; and improvements to the Southern California Edison access road. Heavy construction equipment (e.g., excavators, graders, rollers, track-laying machines, cement mixers, cranes, and haul trucks) would be used in all parts of the proposed Project site, and some pile driving would likely occur, particularly for the new bridge abutments. Construction of all elements would occur essentially simultaneously. (See DEIR Section 2.4.3 for additional details on Construction Activities and Phasing).

Construction Noise Levels

Construction noise would be experienced by workers at industrial and commercial facilities near the proposed Reduced Project site in the City of Los Angeles. However, no noise-sensitive uses were identified within the portion of the City of Los Angeles near the proposed Reduced Project site; noise-sensitive uses within Los Angeles occur along the designated truck routes, which would be used during operations and not for construction trips. Nighttime construction would be very limited and would be confined to the PCH grade separation. Haul routes to and from the site would be limited to PCH to the west and east. Because the number of truck movements would be very limited, little to no increase would be expected with the overall CNEL from traffic on PCH.

Because no noise-sensitive uses in the City of Los Angeles are near the proposed construction areas, daytime construction activities would have no noise-related

effects. The distance from the nearest residential receptor southwest of the reduced project site to the proposed south lead track construction area is approximately 1,800 feet. The distance to the SCIG site is approximately 3,000 to 5,000 feet. Businesses in this area are primarily industrial automobile wrecking yards with a few sporadic residences. Because of the distance to the nearest construction areas, barrier effects of intervening topography, and the high ambient background noise, construction noise is expected to be attenuated to ambient levels.

No on-site construction activities would occur near noise-sensitive uses in the City of Los Angeles between the hours of 9:00 PM and 7:00 AM Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at any time on Sunday. Nighttime construction noise from the PCH grade separation would be attenuated due to the distance to the receptors (4,000 ft), barrier effects of intervening topography and the high ambient background noise. Because the number of truck movements would be very limited, little to no increase would be expected with the overall CNEL from traffic on PCH. Further, single event noise levels would be expected to be similar to what is generated by existing heavy trucks on PCH.

On-Site Operations

Sources of on-site operational noise at the SCIG and alternate business locations facilities would include truck activity, maintenance, train activity, and container loading and unloading operations. Predicted noise levels for on-site activities are summarized in Table F1-36. Existing operations that would be relocated by the proposed Reduced Project would include less intensive trucking in comparison to baseline conditions, warehousing, transloading and yard goats activities. Mechanical equipment associated with these operations includes heavy trucks, trailers, forklifts, yard goats, and maintenance equipment.

Trucks and hostlers would generate noise from their engines and horns. Truck activity would consist of truck traffic arriving and departing from the SCIG and alternate business locations facilities, and moving about within the facilities. An estimated 4,035 truck trips and 3,034 containers would be processed through the SCIG facility on a daily basis. Hostlers would transport containers between storage areas and the loading/unloading tracks. Crane operations would include the use of RMG cranes on the strip tracks for loading and unloading railcars and chassis, and managing container stacking. The cranes, being electrically powered, would generate little noise, but container stacking would generate noise from impacts with other containers, truck trailers, or the ground. The maintenance activities would consist of hostler and crane maintenance, which would be supported by an air compressor building in the northwest portion of the site.

Train operations would account for the majority of operational noise at the proposed Project site. Railroad noise would include locomotive diesel engines, horns, and air brake systems; wheel-on-rail clicking and squealing; and concussion from railcars banging together during switching operations. Six inbound trains and six outbound trains would be expected to pass through the facility each day. Each train would consist of three or four diesel-electric locomotives with attached railcars, with a total length of approximately 8,000 feet. Locomotives would operate from the junction with the Alameda Corridor through the railyard and northward up the north lead tracks. Locomotive noise would be reduced by normal operating procedures, which call for shutting down all but one of the locomotives as the train arrives or until it is

ready to depart and accomplishing all switching activities with a single locomotive. A non audible warning system would be used on site instead of train horns, eliminating the potential for on-site train horn effects.

Table F1-36. Summary of Predicted Noise Levels From On-Site Sources

On-Site Source	*Predicted Noise Level at 100 ft, dBA*
Train Horn (off site)	107
Trains	70 - 95
Air Compressor Building	68
RMG cranes	70
Maintenance Facilities	72
Parking Lot	67
Hostler w/ Trailer	69
Hostlers	59
Heavy Trucks	66
Container Impact	70

Rail Corridor Noise

The proposed six roundtrip trains to and from the SCIG facility each day would result in increased train traffic on local corridors compared to baseline conditions. These corridors include the Alameda Corridor, South Lead Tracks and San Pedro Branch Line. Increased rail activity from the SCIG facility on the Alameda Corridor is analyzed considering the volume of train trips on the Alameda Corridor in the 2010 baseline year and the project-generated train volume in the 2023 future year (six inbound and six outbound trains per day). The baseline data for 2010 provided by ACTA cites an average volume of 39 trains per day on the Alameda Corridor (ACTA communication, 2011). Consideringthe Project-generated trains, the increase in CNEL from the Project's trains on the Alameda Corridor would be less than 1 dB at the nearest residential receptors R28, R29 and R32.

Train horn sounding can produce maximum sound levels as high as 107 dBA at a distance of 100 ft and 90 dBA at a distance of 500 feet. The project would generate six daily inbound and outbound trains with approximately 12 train horn soundings per day occurring near the intersection of the Alameda Corridor and Pacific Coast Highway. Train horn soundings from the project are not expected to occur more than once in any one hour period. When compared to the number of existing train operations, horn soundings and ambient background noise, future locomotive horn noise from SCIG train traffic, although still discernible, would not be expected to result in a CNEL increase greater than 3 dB at the nearest residential receptors R28, R29, and R32.

Future rail movements along the San Pedro Branch line would include diesel engine noise, train horns, and railcar noises, as described above. According to BNSF, train horn soundings are not expected to occur on the San Pedro Branch line due to the Project's design features. Future noise levels from the Project's rail movements on the San Pedro Branch line from all these sources are summarized in Table F1-37.

Table F1-37. Summary of Reduced SCIG Operational Train Noise Levels for San Pedro Branch Line

Receptor Number[1]	*Measured Ambient Noise Level, L50, dBA* [2]	*Measured Ambient CNEL, dBA*	*Predicted Future CNEL for San Pedro Branch Line, dBA*
R1	Day: 45.2 - 51.6 Night: 37.7 - 46.3	54.7	53.9
R2	Day: 58.6 - 60.2 Night: 46.1 - 57.4	64.0	47.1
R3	Day: 56.3 - 64.1	66.6	54.8
R4	Day: 62.4 – 64.3	--	56.1
R5	Day: 52.6 - 58.1	62.8	47.6
R6	Day: 61.5 – 65.3	69.9	55.9
R7	Day: 61.5 – 65.3	69.9	55.4
R7A	Day: 59.2 – 63.2 Night: 51.1 - 58.6	67.3	52.7
R30	Day: 52.0 – 64.2	61.2	51.7
R31	Day: 48.3 – 58.0	59.6	50.3

Note: [1] For receptor locations refer to Figure 3 (where N is equivalent to R).
[2] Refer to Table F1- 4, Summary of Ambient Noise Measurement Data.

Existing Plus Reduced Project Traffic Noise Levels

Table F1-38 shows the predicted roadway traffic noise levels once the proposed Reduced Project is in full operation. Portions of the following roadways in the City of Los Angeles include noise-sensitive land uses that would be expected to experience future traffic noise levels above 70 CNEL: Alameda Street, E. Anaheim St., E. Harry Bridges Boulevard, E. Sepulveda Boulevard, John S. Gibson Boulevard, Pacific Coast Highway, S Alameda St., W. Harry Bridges Boulevard, and W. Sepulveda Boulevard. Traffic noise levels above 70 CNEL are considered incompatible with noise guidelines.

Table F1-39 shows the predicted noise level increase over existing levels; the Reduced Project's traffic noise contribution. Roadways in Los Angeles with noise-sensitive land uses would not experience a Reduced Project increase in traffic noise level exceeding 3 dB. The majority of roadways within the City would experience a traffic noise decrease as a result of the Reduced Project.

Table F1-38. Existing Plus Reduced Project Roadway Traffic Noise Levels

ROADWAY SEGMENT	*Leq @ Rec.*	*CNEL @ Rec.*	*DISTANCE TO CNEL CONTOURS (FT) 70*	*65*	*60*
1ST ST					
e/o East RD	73.9	74.9	277	575	1135
ACCESS RD					
e/o Ferry St	68.9	69.9	98	238	504
ALAMEDA ST					
n/o Anaheim St	71.0	72.0	152	345	709
w/o Eubank Ave	74.2	75.2	299	613	1204
s/o PCH	72.9	73.9	227	486	972
s/o Anaheim St	74.9	75.9	343	687	1338
CARRACK AVE					
e/o Pier B St	66.1	67.1	55	145	319
E 223RD AVE					
w/o I-405 Off ramps	71.3	72.3	163	367	750
E ANAHEIM ST					
between Avalon Blvd and Broad Ave	64.5	65.5	39	109	244
between Eubank Ave and Sanford St	64.5	65.5	39	110	246
between Sanford Ave and Sanford St	64.6	65.6	40	112	251
between Anaheim and Henry Ford	72.3	73.3	200	436	880
e/o Henry Ford Ave	73.8	74.8	272	565	1117
w/o E I St	72.3	73.3	201	437	882
e/o Sanford Ave	67.7	68.7	76	192	413
w/o Anaheim Way	73.9	74.9	276	573	1131
between Henry Ford Ave and Terminal Isla	73.8	74.8	274	568	1123
E HARRY BRIDGES BLVD					
e/o Avalon Blvd	72.5	73.5	210	454	913
E I ST					
between Terminal Island Fwy and Anaheim	70.8	71.8	147	336	692
E OPP ST					
w/o Farragut Ave	58.7	59.7	12	39	95
E SEPULVEDA BLVD					
e/o Alameda St	68.8	69.8	96	235	497
w/o Dolores St	67.6	68.6	75	190	409
w/o Wilmington Ave	69.3	70.3	107	257	541
e/o Wilmington Ave	68.0	69.0	81	202	433
e/o Dolores St	67.2	68.2	69	177	383
w/o Avalon Blvd	67.2	68.2	68	175	379
EAST RD					
n/o 1st St	66.3	67.3	57	151	331

s/o 1st St	67.4	68.4	72	183	395
FARRAGUT AVE					
Between Terminal Island Fwy SB ramps and	70.3	71.3	131	306	634
s/o E OPP St	58.7	59.7	12	39	95
FERRY ST					
between Seaside Ave and Access Rd	68.8	69.8	96	234	496
between Terminal Way and Pitchard St	71.7	72.7	175	389	792
FIGUEROA ST					
n/o Anaheim St	65.2	66.2	45	123	274
n/o PCH	65.7	66.7	50	136	300
HARBOR FWY					
n/o PCH off Ramp	83.5	84.5	2081	3163	5466
s/o Sepulveda Blvd	83.4	84.4	2054	3128	5410
n/o Sepulveda Blvd	83.5	84.5	2078	3159	5460
n/o 223rd St	83.6	84.6	2114	3205	5532
n/o 220th St	83.7	84.7	2162	3267	5631
n/o Carson St	83.8	84.8	2231	3354	5770
n/o Redondo Beach Blvd	83.4	84.4	2031	3099	5364
between 135 th St and Rosecrans Ave	83.3	84.3	1994	3050	5286
n/o 135th St	83.2	84.2	1966	3014	5228
n/o Alondra	83.3	84.3	1992	3049	5284
between Del Amo Blvd and Torrance Blv	83.8	84.8	2193	3307	5695
between 168th and Alondra	83.5	84.5	2096	3182	5496
n/o Del Amo Blvd	84.0	85.0	2290	3429	5889
n/o I-405	83.0	84.0	1879	2901	5047
s/o I-405	83.0	84.0	1875	2896	5040
s/o 182nd St	83.2	84.2	1934	2973	5163
between Artesia Blvd and 168th	82.9	83.9	1835	2843	4955
s/o SR-91	82.9	83.9	1832	2840	4950
s/o PCH off Ramp	83.3	84.3	1986	3040	5269
n/o El Segundo Blvd	83.3	84.3	1994	3051	5288
s/o El Segundo Blvd	83.2	84.2	1958	3004	5212
n/o Anaheim St	83.3	84.3	1990	3046	5279
s/o 120th St	83.2	84.2	1958	3004	5212
n/o 120th St	82.6	83.6	1708	2676	4685
n/o I-105	83.0	84.0	1861	2878	5010
n/o 108th St	83.5	84.5	2098	3185	5500
s/o 223rd St	83.7	84.7	2165	3270	5637
s/o 190th St	83.1	84.1	1927	2963	5147
HARBOR PLZ					
between Pier F Ave and Pico Ave	71.6	72.6	172	384	782
HARBOR SCENIC DR					

w/o Goldenshore St	73.8	74.8	276	572	1129
s/o Shoreline Dr	76.0	77.0	437	844	1618
n/o Shoreline Dr	77.1	78.1	544	1017	1920
HARBOR SCENIC WAY					
e/o Queens Hwy	72.8	73.8	222	476	953
e/o Port Access Rd	73.2	74.2	241	510	1017
Between Queens Hwy and Port Access Rd	60.2	61.2	16	51	123
w/o Port Access Rd	73.2	74.2	241	510	1017
JOHN S GIBSON BLVD					
n/o I-110 Ramps	70.9	71.9	150	341	701
LONG BEACH FWY					
n/o Imperial Hwy	85.0	86.0	2822	4093	6932
s/o Imperial Hwy	85.2	86.2	2985	4292	7243
n/o I-105	84.8	85.8	2754	4009	6802
s/o I-105	84.7	85.7	2696	3938	6690
n/o Rosecrans Ave	84.8	85.8	2737	3988	6768
s/o Rosecrans Ave	86.5	87.5	3891	5372	8907
n/o Alondra	86.5	87.5	3886	5365	8897
between Alondra and Rosecrans	86.5	87.5	3900	5382	8923
s/o Alondra	86.5	87.5	3899	5380	8920
n/o SR-91	85.9	86.9	3467	4871	8139
n/o Artesia Blvd	85.1	86.1	2923	4216	7125
s/o Artesia Blvd	86.4	87.4	3823	5291	8784
n/o Long Beach Blvd	86.6	87.6	4009	5508	9116
s/o Long Beach Blvd	86.6	87.6	3947	5436	9006
n/o Del Amo Blvd	86.6	87.6	3975	5469	9056
s/o Del Amo Blvd Off ramp	86.6	87.6	3984	5480	9073
s/o Del Amo Blvd	86.7	87.7	4065	5573	9215
n/o Wardlow Rd	85.7	86.7	3292	4663	7818
s/o Wardlow Rd	86.1	87.1	3565	4987	8318
n/o Willow St	86.1	87.1	3602	5032	8387
s/o Willow St	85.9	86.9	3468	4873	8142
between off/of namps at Willow St	86.0	87.0	3533	4950	8260
s/o Anaheim St	85.2	86.2	2981	4287	7234
s/o PCH	85.2	86.2	2981	4287	7234
n/o Anahiem St	85.3	86.3	3032	4349	7332
s/o Firestone Blvd	85.2	86.2	2950	4249	7175
s/o 9th St	84.3	85.3	2482	3671	6272
n/o Long Beach Blvd	86.3	87.3	3743	5198	8641
n/o 9th St	85.1	86.1	2881	4165	7045
n/o 10th St	84.8	85.8	2732	3982	6759
s/o On ramp at Del Amo Blvd	86.6	87.6	3998	5496	9097

s/o Willow St	85.9	86.9	3452	4854	8112
n/o Anaheim St	85.4	86.4	3125	4462	7507
N HENRY FORD AVE					
n/o Terminal Island fwy	70.5	71.5	137	317	655
n/o Anaheim St	69.2	70.2	104	250	526
N SEASIDE AVE					
e/o Navy Way	80.9	81.9	1201	1986	3559
e/o Access Rd ramp	77.4	78.4	577	1068	2009
w/o Navy Way	80.7	81.7	1168	1941	3484
e/o Ferry St	73.4	74.4	254	533	1059
e/o Navy Way ramp	81.8	82.8	1472	2360	4173
e/o Navy Way	80.9	81.9	1199	1984	3555
NAVY WAY					
s/o Reeves Ave	76.4	77.4	472	901	1717
s/o Terminal Way	77.3	78.3	572	1061	1996
NEW DOCK ST					
w/o Henry Ford Ave	73.0	74.0	230	490	979
e/o Henry Ford Ave	75.5	76.5	394	773	1491
w/o SB off ramp Terminal Island Fwy	75.5	76.5	394	773	1491
w/o NB on ramp Terminal Island Fwy	74.8	75.8	337	678	1322
between Terminal Island Fwy SB and NB Ra	74.8	75.8	337	678	1322
e/o NB on ramp Terminal Island Fwy	73.5	74.5	259	542	1075
PACIFIC COAST HIGHWAY					
between Avalon Blvd and Eubank Ave	70.8	71.8	146	334	689
between Watson Ave and Eubank Ave	70.8	71.8	145	333	686
w/o Alameda St	71.7	72.7	176	392	797
w/o East Rd	70.9	71.9	148	337	694
w/o East Rd	70.8	71.8	145	331	683
between Watson Ave and Blinn Ave	70.6	71.6	140	322	666
PICO AVE					
s/o Ocean Blvd	70.5	71.5	138	318	658
n/o Ocean Blvd	72.3	73.3	199	433	874
n/o Pier C St	73.7	74.7	266	554	1097
s/o Pier C St	72.8	73.8	223	478	958
n/o Pier DSt	72.9	73.9	225	481	964
PIER A WAY					
e/o Henry Ford Ave	66.8	67.8	64	165	359
e/o Henry Ford Ave	67.9	68.9	79	198	424
e/o Henry Ford Ave	68.5	69.5	90	221	471
between Terminal Island Fwy and Henry Fo	60.4	61.4	17	53	126
n/o Terminal Island Fwy	65.1	66.1	44	122	272
e/o Henry Ford Ave	64.4	65.4	38	108	242

e/o Henry Ford Ave	65.0	66.0	44	120	268
PIER B ST					
s/o 9th St	69.5	70.5	111	266	557
w/o Edison Ave	69.1	70.1	102	247	522
n/o Pier A way	67.2	68.2	69	177	384
PIER C ST					
w/o Pier B St	67.7	68.7	77	194	417
w/o Pier B St	67.8	68.8	78	197	423
PIER D AVE					
s/o Pier D St	60.5	61.5	17	54	128
PIER D ST					
w/o I-710	67.9	68.9	79	199	426
PIER F AVE					
s/o Harbor Plaza	70.5	71.5	137	317	655
s/o Harbor Plaza	73.1	74.1	234	498	994
s/o Harbor Plaza	73.1	74.1	234	498	994
PIER J WAY					
e/o Panorama Dr	69.6	70.6	113	269	563
PORT ACCESS RD					
e/o Ocean Blvd Ramps	75.2	76.2	366	727	1409
n/o New Dock St	70.5	71.5	136	315	652
n/o New Dock St	70.3	71.3	130	303	629
s/o Pier J way	72.1	73.1	190	416	843
s/o Pier J way	69.6	70.6	113	269	563
n/o Pier J way	72.0	73.0	188	413	837
s/o Harbor Scenic way	72.0	73.0	188	414	838
QUEENSWAY DR					
s/o Harbor Scenic Dr	70.3	71.3	131	304	632
S ALAMEDA ST					
n/o Wardlow Rd	72.6	73.6	214	461	927
S FRIES AVE					
s/o Water St	71.1	72.1	154	350	718
between Harry Bridges Blvd and Water St	69.4	70.4	109	261	547
S HARBOR SCENIC DR					
s/o Shoreline Dr	71.4	72.4	166	372	759
w/o Goldenshore St	74.6	75.6	320	648	1268
e/o Goldenshore St	76.2	77.2	454	872	1667
w/o Panorama Dr	75.0	76.0	348	696	1353
S PICO AVE					
s/o Embarcadero	71.1	72.1	155	351	720
n/o Harbor Scenic Dr ramp	75.5	76.5	389	766	1479

s/o Harbor Scenic Dr ramp	75.1	76.1	361	718	1393
SAN DIEGO FWY					
e/o I-110	84.3	85.3	2463	3648	6234
e/o Wilmington Blvd	84.2	85.2	2385	3550	6080
w/o Santa Fe Ave	84.6	85.6	2627	3852	6555
e/o 218th St	84.9	85.9	2769	4028	6830
w/o Alameda St	84.3	85.3	2483	3673	6274
e/o Wilmington Ave	84.1	85.1	2335	3487	5980
w/o Wilmington Ave	84.2	85.2	2394	3561	6097
s/o Carson St	84.1	85.1	2377	3540	6064
n/o Carson St	84.1	85.1	2342	3496	5994
n/o 213th St	84.0	85.0	2326	3475	5961
e/o Avalon Blvd	83.8	84.8	2225	3347	5759
w/o Avalon Blvd	84.0	85.0	2303	3446	5915
SAN GABRIEL AV					
n/o PCH	71.3	72.3	161	364	744
TERMINAL ISLAND FWY					
s/o PCH	73.4	74.4	250	527	1048
n/o PCH	68.1	69.1	83	206	441
between Off and loop On ramp at PCH	74.6	75.6	325	657	1283
s/o PCH off ramp	78.6	79.6	746	1327	2455
between Henry Ford Ave and Anaheim St	77.9	78.9	639	1165	2176
n/o Ocean Blvd	74.9	75.9	343	689	1341
s/o Henry Ford Ave	76.6	77.6	492	933	1773
e/o Seaside Ave	75.7	76.7	408	797	1533
s/o Willow St	62.1	63.1	24	72	167
TERMINAL WAY					
w/o Ferry St	73.6	74.6	263	550	1089
w/o Eaire St	73.4	74.4	253	531	1055
s/o Navy Way	73.4	74.4	250	526	1045
s/o Navy Way	71.3	72.3	161	363	742
s/o Navy Way	73.4	74.4	251	528	1050
s/o Navy Way	69.6	70.6	114	271	567
s/o Navy Way	69.8	70.8	119	281	586
s/o Navy Way	71.9	72.9	185	408	827
W 9TH ST					
e/o Caspian Ave	64.6	65.6	39	110	248
s/o Anaheim St	66.3	67.3	57	151	330
e/o Santa Fe Ave	65.1	66.1	44	122	272
w/o Caspian Ave	64.6	65.6	39	110	248
n/o Pier B St	64.0	65.0	35	101	228
w/o Santa Fe Ave	68.2	69.2	84	210	448
s/o Pier B St	71.0	72.0	152	346	711

n/o Pier B St	68.9	69.9	97	236	500
W ANAHEIM ST					
e/o Harbor Ave	68.7	69.7	94	230	487
e/o Santa Fe Ave	72.6	73.6	214	462	927
w/o Harbor Ave	71.3	72.3	162	365	747
w/o Seabright Ave	71.6	72.6	174	387	788
w/o E I St	70.2	71.2	129	301	625
w/o Figueroa PL	67.6	68.6	74	189	407
between Wilmington and Neptune Ave	64.8	65.8	41	115	257
between Frigate Ave and Wilmington Blvd	64.6	65.6	40	111	250
e/o Neptune	64.7	65.7	41	113	253
between Neptune Ave and Fries Ave	64.6	65.6	39	110	248
w/o Frigate Ave	64.9	65.9	43	118	263
e/o Figueroa PL	68.3	69.3	86	214	455
between Seabright Ave and Santa Fe Ave	71.4	72.4	164	369	754
between Fries Ave and Avalon Blvd	65.2	66.2	45	124	276
between I-710 SB and NB Ramps	68.8	69.8	95	233	493
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71.6	72.6	171	381	776
between Hawaiian Ave and Wilmington Blvd	71.7	72.7	177	392	797
between Neptune Ave and Fries Ave	70.3	71.3	130	303	628
between Figueroa St and Mar Vista Ave	71.6	72.6	174	387	788
between Fries Ave and Avalon Blvd	72.4	73.4	203	442	890
between Mar Vista Ave and Hawaiian Ave	71.7	72.7	175	390	793
W I ST					
n/o Anaheim St	62.2	63.2	24	73	169
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	67.7	68.7	76	192	412
w/o I-110 SB off ramp	68.0	69.0	81	204	436
between I-710 NB and SB ramps	73.2	74.2	240	508	1013
e/o San Gabriel Ave	73.7	74.7	268	558	1105
between San Gabriel Ave and Santa Fe Ave	73.8	74.8	271	564	1115
e/o Wilmington Blvd	68.4	69.4	88	218	465
e/o Figueroa St	68.3	69.3	86	214	457
between Neptune Ave and Avalon Blvd	68.4	69.4	88	217	463
between Terminal Island Fwy SB and NB ra	73.0	74.0	230	490	980
e/o Santa Fe Ave	73.7	74.7	266	554	1097
e/o Harbor Ave	73.0	74.0	233	496	990
w/o Termial Island Fwy	72.7	73.7	215	464	931
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	69.9	70.9	120	283	590
between Harbor Scenic Dr and Pier J Way	69.8	70.8	118	278	581
W SEPULVEDA BLVD					

e/o SB I-110 off Ramp	69.9	70.9	121	284	592
w/o NB I-110 off ramp	70.0	71.0	123	288	601
w/o Figueroa St	69.0	70.0	100	243	512
e/o Figueroa St	66.2	67.2	56	148	324
between SB and NB I-110 Ramps	70.0	71.0	123	289	601
W WATER ST					
between Fries Ave and Avalon Blvd	67.2	68.2	68	175	379
W WILLOW ST					
between NB and SB Terminal Island Fwy	67.6	68.6	75	190	408
between Terminal Island Fwy and Santa Fe	68.0	69.0	81	203	434
between Santa Fe Ave and Easy Ave	67.8	68.8	77	195	419
e/o Easy Ave	68.7	69.7	94	230	488
w/o SB I-710 ramps	67.6	68.6	75	191	411
w/o NB I-710 on ramp	67.8	68.8	78	197	423
SAN DIEGO FWY					
SB e/o Wilmington Ave	74.0	75.0	283	584	1152
SB w/o Wilmington Ave	74.3	75.3	306	625	1226
SB s/o Carson St	74.2	75.2	300	614	1207
NB n/o Carson St	75.3	76.3	376	744	1439
NB n/o 213th St	74.8	75.8	340	682	1329
NB e/o Avalon Blvd	75.4	76.4	380	750	1450
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB w/o Avalon Blvd	76.0	77.0	434	840	1609
SB e/o Avalon Blvd	74.8	75.8	338	679	1323
NB w/o Wilmington Ave	74.7	75.7	328	662	1292
NB e/o 218th St	75.3	76.3	372	736	1425
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB s/o Carson St	74.7	75.7	328	662	1292
SB n/o Carson St	74.6	75.6	324	656	1282
SAN GABRIEL AV					
n/o PCH	65.0	66.0	43	119	266
TERMINAL ISLAND FWY					
s/o PCH	72.8	73.8	222	476	954
n/o PCH	71.8	72.8	181	400	812
n/o Ocean Blvd	73.6	74.6	259	543	1077
NB s/o PCH	73.2	74.2	242	512	1019
SB n/o PCH	72.1	73.1	190	418	845
NB between Off and loop On ramp at PCH	73.2	74.2	242	512	1019
NB s/o PCH off ramp	76.0	77.0	428	830	1593
SB n/o Anaheim St	71.2	72.2	158	357	732
NB between Henry Ford Ave and Anaheim St	74.6	75.6	325	658	1285
NB n/o Ocean Blvd	72.6	73.6	213	460	924

SB n/o Ocean Blvd	71.0	72.0	152	346	710
s/o Henry Ford Ave	74.1	75.1	290	596	1174
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
e/o Seaside Ave	72.5	73.5	208	451	908
SB s/o Anaheim Way	74.0	75.0	287	592	1166
NB s/o Willow St	68.9	69.9	97	237	501
SB s/o PCH on ramp	74.0	75.0	287	591	1165
SB s/o PCH	72.9	73.9	225	481	962
NB n/o PCH	72.2	73.2	196	428	864
SB between loop Off and On ramp at PCH	72.8	73.8	224	479	960
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
s/o Henry Ford Ave	74.2	75.2	296	607	1194
TERMINAL WAY					
w/o Ferry St	72.4	73.4	203	442	890
w/o Eaire St	72.3	73.3	199	434	875
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	69.8	70.8	118	278	581
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	68.9	69.9	98	238	504
s/o Navy Way	69.0	70.0	99	241	510
s/o Navy Way	70.5	71.5	137	316	653
W 9TH ST					
e/o Caspian Ave	63.1	64.1	29	85	195
s/o Anaheim St	66.5	67.5	60	157	342
e/o Santa Fe Ave	64.7	65.7	41	114	256
w/o Caspian Ave	63.1	64.1	29	86	196
n/o Pier B St	61.6	62.6	21	65	153
w/o Santa Fe Ave	67.5	68.5	73	187	403
s/o Pier B St	71.4	72.4	164	369	754
n/o Pier B St	66.8	67.8	63	164	356
W ANAHEIM ST					
e/o Harbor Ave	66.8	67.8	63	164	356
e/o Santa Fe Ave	71.4	72.4	165	371	757
w/o Harbor Ave	69.3	70.3	107	257	540
w/o Seabright Ave	70.2	71.2	129	301	625
w/o E I St	68.2	69.2	85	211	450
w/o Figueroa PL	68.4	69.4	88	218	464
between Wilmington and Neptune Ave	63.4	64.4	31	90	206
between Frigate Ave and Wilmington Blvd	63.6	64.6	32	93	212
e/o Neptune	63.2	64.2	30	87	199
between Neptune Ave and Fries Ave	63.3	64.3	30	88	201
w/o Frigate Ave	63.5	64.5	32	91	208
e/o Figueroa PL	68.4	69.4	89	219	467
between Seabright Ave and Santa Fe Ave	70.1	71.1	125	292	608

between Fries Ave and Avalon Blvd	63.8	64.8	34	97	219
between I-710 SB and NB Ramps	66.9	67.9	64	167	362
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71.0	72.0	151	344	707
between Hawaiian Ave and Wilmington Blvd	70.8	71.8	146	334	688
between Neptune Ave and Fries Ave	70.0	71.0	124	291	606
between Figueroa St and Mar Vista Ave	70.7	71.7	143	328	677
between Fries Ave and Avalon Blvd	71.5	72.5	167	375	765
between Mar Vista Ave and Hawaiian Ave	70.8	71.8	146	334	688
W I ST					
n/o Anaheim St	63.1	64.1	29	85	196
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	67.1	68.1	67	172	373
w/o I-110 SB off ramp	67.4	68.4	71	181	392
between I-710 NB and SB ramps	71.8	72.8	180	399	811
e/o San Gabriel Ave	73.4	74.4	250	527	1047
between San Gabriel Ave and Santa Fe Ave	73.2	74.2	242	512	1020
e/o Wilmington Blvd	67.8	68.8	78	196	420
e/o Figueroa St	67.6	68.6	74	189	407
between Neptune Ave and Avalon Blvd	68.3	69.3	86	214	456
between Terminal Island Fwy SB and NB ra	71.5	72.5	170	379	774
e/o Santa Fe Ave	73.6	74.6	261	547	1083
e/o Harbor Ave	71.7	72.7	175	389	791
w/o Termial Island Fwy	70.2	71.2	129	301	625
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	70.4	71.4	135	312	647
between Harbor Scenic Dr and Pier J Way	71.3	72.3	161	363	743
W SEPULBEDA BLVD					
e/o SB I-110 off Ramp	67.7	68.7	76	192	413
w/o NB I-110 off ramp	68.4	69.4	88	217	462
w/o Figueroa St	68.0	69.0	80	202	432
e/o Figueroa St	65.7	66.7	50	136	300
between SB and NB I-110 Ramps	67.8	68.8	77	195	419
W WATER ST					
between Fries Ave and Avalon Blvd	64.4	65.4	38	108	242
W WILLOW ST					
between NB and SB Terminal Island Fwy	69.9	70.9	121	285	595
between Terminal Island Fwy and Santa Fe	66.7	67.7	61	160	350
between Santa Fe Ave and Easy Ave	66.7	67.7	62	163	354
e/o Easy Ave	68.7	69.7	93	228	484
w/o SB I-710 ramps	65.9	66.9	53	141	310
w/o NB I-710 on ramp	66.6	67.6	60	158	345

Table F1-39. Reduced Project Roadway Traffic Noise Level Increase

ROADWAY SEGMENT	*Existing CNEL @ 100 ft.*	*Reduced Project Alternative CNEL @ 100 ft*	*Reduced Project Increment in Traffic Noise Level, dB*
1ST ST			
e/o East RD	74.6	74.9	0.3
ACCESS RD			
e/o Ferry St	67.8	69.9	2.1
ALAMEDA ST			
n/o Anaheim St	71.9	72.0	0.1
w/o Eubank Ave	73.6	75.2	1.6
s/o PCH	73.8	73.9	0.1
s/o Anaheim St	74.5	75.9	1.4
E 223RD AVE			
w/o I-405 Off ramps	72.1	72.3	0.2
E ANAHEIM ST			
between Avalon Blvd and Broad Ave	65.5	65.5	0.0
between Eubank Ave and Sanford St	65.8	65.5	-0.3
between Sanford Ave and Sanford St	65.9	65.6	-0.3
between Anaheim and Henry Ford	71.7	73.3	1.6
e/o Henry Ford Ave	73	74.8	1.8
w/o E I St	72.2	73.3	1.1
e/o Sanford Ave	68.9	68.7	-0.2
w/o Anaheim Way	73	74.9	1.9
between Henry Ford Ave and Terminal Isla	73	74.8	1.8
E HARRY BRIDGES BLVD			
e/o Avalon Blvd	72.1	73.5	1.4
E I ST			
between Terminal Island Fwy and Anaheim	71.5	71.8	0.3
E OPP ST			
w/o Farragut Ave	44.4	59.7	15.3
E SEPULVEDA BLVD			
e/o Alameda St	70.7	69.8	-0.9
w/o Dolores St	69.3	68.6	-0.7
w/o Wilmington Ave	70.1	70.3	0.2
e/o Wilmington Ave	69	69.0	0
e/o Dolores St	68.9	68.2	-0.7
w/o Avalon Blvd	68.9	68.2	-0.7
EAST RD			
n/o 1st St	65.9	67.3	1.4

s/o 1st St	65.1	68.4	3.3
FARRAGUT AVE			
Between Terminal Island Fwy SB ramps and	70	71.3	1.3
s/o E OPP St	44.4	59.7	15.3
FERRY ST			
between Seaside Ave and Access Rd	68.1	69.8	1.7
between Terminal Way and Pitchard St	70.7	72.7	2
FIGUEROA ST			
n/o Anaheim St	65.3	66.2	0.9
n/o PCH	65.8	66.7	0.9
HARBOR FWY			
n/o PCH off Ramp	83	84.5	1.5
s/o Sepulveda Blvd	82.9	84.4	1.5
n/o Sepulveda Blvd	83.1	84.5	1.4
n/o 223rd St	83.3	84.6	1.3
n/o 220th St	83.4	84.7	1.3
n/o Carson St	83.7	84.8	1.1
n/o Redondo Beach Blvd	83.7	84.4	0.7
between 135 th St and Rosecrans Ave	83.7	84.3	0.6
n/o 135th St	83.4	84.2	0.8
n/o Alondra	83.6	84.3	0.7
between Del Amo Blvd and Torrance Blv	83.6	84.8	1.2
between 168th and Alondra	83.8	84.5	0.7
n/o Del Amo Blvd	83.9	85.0	1.1
n/o I-405	83	84.0	1
s/o I-405	83	84.0	1
s/o 182nd St	83.3	84.2	0.9
between Artesia Blvd and 168th	83.1	83.9	0.8
s/o SR-91	83.2	83.9	0.7
s/o PCH off Ramp	82.6	84.3	1.7
n/o El Segundo Blvd	83.5	84.3	0.8
s/o El Segundo Blvd	83.4	84.2	0.8
n/o Anaheim St	82.8	84.3	1.5
s/o 120th St	83.4	84.2	0.8
n/o 120th St	82.9	83.6	0.7
n/o I-105	83.4	84.0	0.6
n/o 108th St	84	84.5	0.5
s/o 223rd St	83.4	84.7	1.3
s/o 190th St	83.3	84.1	0.8
HARBOR PLZ			
between Pier F Ave and Pico Ave	70	72.6	2.6
HARBOR SCENIC DR			
w/o Goldenshore St	72.5	74.8	2.3

s/o Shoreline Dr	73.3	77.0	3.7
n/o Shoreline Dr	74.1	78.1	4
HARBOR SCENIC WAY			
e/o Queens Hwy	69.5	73.8	4.3
e/o Port Access Rd	70	74.2	4.2
w/o Port Access Rd	70	74.2	4.2
JOHN S GIBSON BLVD			
n/o I-110 Ramps	70.7	71.9	0.2
LONG BEACH FWY			
n/o Imperial Hwy	85.8	86.0	0.2
s/o Imperial Hwy	86.1	86.2	0.1
n/o I-105	85.7	85.8	0.1
s/o I-105	85.7	85.7	0
n/o Rosecrans Ave	85.7	85.8	0.1
s/o Rosecrans Ave	86.9	87.5	0.6
n/o Alondra	86.9	87.5	0.6
between Alondra and Rosecrans	86.9	87.5	0.6
s/o Alondra	86.8	87.5	0.7
n/o SR-91	86.3	86.9	0.6
n/o Artesia Blvd	85.5	86.1	0.6
s/o Artesia Blvd	86.3	87.4	1.1
n/o Long Beach Blvd	86.5	87.6	1.3
s/o Long Beach Blvd	86.3	87.6	1.1
n/o Del Amo Blvd	86.4	87.6	1.3
s/o Del Amo Blvd Off ramp	86.4	87.6	1.2
s/o Del Amo Blvd	86.5	87.7	1.2
n/o Wardlow Rd	85	86.7	1.7
s/o Wardlow Rd	85.6	87.1	1.5
n/o Willow St	84.6	87.1	2.5
s/o Willow St	85.4	86.9	1.5
between off/of namps at Willow St	85.4	87.0	1.6
s/o Anaheim St	84.5	86.2	1.7
s/o PCH	84.5	86.2	1.7
n/o Anahiem St	84.7	86.3	1.6
s/o Firestone Blvd	86	86.2	0.2
s/o 9th St	81.8	85.3	3.5
n/o Long Beach Blvd	86.3	87.3	1
n/o 9th St	82.8	86.1	3.3
n/o 10th St	83.3	85.8	2.5
s/o On ramp at Del Amo Blvd	86.4	87.6	1.2
s/o Willow St	85.3	86.9	1.6
n/o Anaheim St	84.7	86.4	1.7

N HENRY FORD AVE			
n/o Terminal Island fwy	71.5	71.5	0
n/o Anaheim St	69.7	70.2	0.5
N SEASIDE AVE			-
e/o Navy Way	79.6	81.9	2.3
e/o Access Rd ramp	75.6	78.4	2.8
w/o Navy Way	78.9	81.7	2.8
e/o Ferry St	72.8	74.4	1.6
e/o Navy Way ramp	80.6	82.8	2.2
e/o Navy Way	79.6	81.9	2.3
NAVY WAY			
s/o Reeves Ave	71.4	77.4	6
s/o Terminal Way	73.4	78.3	4.9
NEW DOCK ST			
w/o Henry Ford Ave	69.4	74.0	4.6
e/o Henry Ford Ave	71.7	76.5	4.8
w/o SB off ramp Terminal Island Fwy	71.7	76.5	4.8
w/o NB on ramp Terminal Island Fwy	69	75.8	6.8
tween Terminal Island Fwy SB and NB Ra	69	75.8	6.8
PACIFIC COAST HIGHWAY			
between Avalon Blvd and Eubank Ave	72	71.8	-0.2
between Watson Ave and Eubank Ave	72	71.8	-0.2
w/o Alameda St	72.5	72.7	0.2
w/o East Rd	72.2	71.9	-0.3
w/o East Rd	71.6	71.8	0.2
between Watson Ave and Blinn Ave	72	71.6	-0.4
PICO AVE			
s/o Ocean Blvd	66.5	71.5	5
n/o Ocean Blvd	68.9	73.3	4.4
n/o Pier C St	72.3	74.7	2.4
s/o Pier C St	71.4	73.8	2.4
n/o Pier DSt	71.4	73.9	2.5
PIER A WAY			
e/o Henry Ford Ave	65.5	67.8	2.3
e/o Henry Ford Ave	67.8	68.9	1.1
e/o Henry Ford Ave	69.5	69.5	0
between Terminal Island Fwy and Henry Fo	54.4	61.4	7
n/o Terminal Island Fwy	64.4	66.1	1.7
e/o Henry Ford Ave	64	65.4	1.4
e/o Henry Ford Ave	65.1	66.0	0.9
PIER B ST			
s/o 9th St	68.3	70.5	2.2

w/o Edison Ave	68.1	70.1	2
n/o Pier A way	65.5	68.2	2.7
PIER C ST			
w/o Pier B St	66.9	68.7	1.8
w/o Pier B St	66.3	68.8	2.5
PIER D AVE			
s/o Pier D St	60.4	61.5	1.1
PIER D ST			
w/o I-710	68.3	68.9	0.6
PIER F AVE			
s/o Harbor Plaza	69.1	71.5	2.4
s/o Harbor Plaza	48.3	74.1	25.8
s/o Harbor Plaza	48.3	74.1	25.8
PIER J WAY			
e/o Panorama Dr	70	70.6	0.6
PORT ACCESS RD			
e/o Ocean Blvd Ramps	71.3	76.2	4.9
n/o New Dock St	67.4	71.5	4.1
n/o New Dock St	67	71.3	4.3
s/o Pier J way	69.2	73.1	3.9
s/o Pier J way	70	70.6	0.6
n/o Pier J way	69.2	73.0	3.8
s/o Harbor Scenic way	68.7	73.0	4.3
QUEENSWAY DR			
s/o Harbor Scenic Dr	68.6	71.3	2.7
S ALAMEDA ST			
n/o Wardlow Rd	69.6	73.6	4
S FRIES AVE			
s/o Water St	68.7	72.1	3.4
between Harry Bridges Blvd and Water St	67	70.4	3.4
S HARBOR SCENIC DR			
s/o Shoreline Dr	69.4	72.4	3
w/o Goldenshore St	73	75.6	2.6
e/o Goldenshore St	73.4	77.2	3.8
w/o Panorama Dr	73.4	76.0	2.6
S PICO AVE			
s/o Embarcadero	66.7	72.1	5.4
n/o Harbor Scenic Dr ramp	70.4	76.5	6.1
s/o Harbor Scenic Dr ramp	69.9	76.1	6.2
SAN DIEGO FWY			
e/o I-110	84.5	85.3	0.8

e/o Wilmington Blvd	84.4	85.2	0.8
w/o Santa Fe Ave	84.9	85.6	0.7
e/o 218th St	85.1	85.9	0.8
w/o Alameda St	84.6	85.3	0.7
e/o Wilmington Ave	84.4	85.1	0.7
w/o Wilmington Ave	84.5	85.2	0.7
s/o Carson St	84.4	85.1	0.7
n/o Carson St	84.3	85.1	0.8
n/o 213th St	84.4	85.0	0.6
e/o Avalon Blvd	84.3	84.8	0.5
w/o Avalon Blvd	84.5	85.0	0.5
SAN GABRIEL AV			
n/o PCH	65	72.3	7.3
TERMINAL ISLAND FWY			
s/o PCH	76.1	74.4	-1.7
n/o PCH	75.3	69.1	-6.2
between Off and loop On ramp at PCH	76.1	75.6	-0.5
s/o PCH off ramp	78	79.6	1.6
between Henry Ford Ave and Anaheim St	76.5	78.9	2.4
n/o Ocean Blvd	72.8	75.9	3.1
s/o Henry Ford Ave	74.2	77.6	3.4
e/o Seaside Ave	75	76.7	1.7
s/o Willow St	71.5	63.1	-8.4
TERMINAL WAY			
w/o Ferry St	72.4	74.6	2.2
w/o Eaire St	71.9	74.4	2.5
s/o Navy Way	71.7	74.4	2.7
s/o Navy Way	69.4	72.3	2.9
s/o Navy Way	71.7	74.4	2.7
s/o Navy Way	67.9	70.6	2.7
s/o Navy Way	68	70.8	2.8
s/o Navy Way	69.8	72.9	3.1
W 9TH ST			
e/o Caspian Ave	64	65.6	1.6
s/o Anaheim St	68.7	67.3	-1.4
e/o Santa Fe Ave	67.8	66.1	-1.7
w/o Caspian Ave	65.4	65.6	0.2
n/o Pier B St	60.7	65.0	4.3
w/o Santa Fe Ave	69	69.2	0.2
s/o Pier B St	70	72.0	2
n/o Pier B St	66.6	69.9	3.3
W ANAHEIM ST			

e/o Harbor Ave	69.6	69.7	0.1
e/o Santa Fe Ave	73.1	73.6	0.5
w/o Harbor Ave	71.3	72.3	1
w/o Seabright Ave	71.9	72.6	0.7
w/o E I St	69.8	71.2	1.4
w/o Figueroa PL	69.2	68.6	-0.6
between Wilmington and Neptune Ave	65.5	65.8	0.3
between Frigate Ave and Wilmington Blvd	65.8	65.6	-0.2
e/o Neptune	65.3	65.7	0.4
between Neptune Ave and Fries Ave	65.2	65.6	0.4
w/o Frigate Ave	66.1	65.9	-0.2
e/o Figueroa PL	69.4	69.3	-0.1
between Seabright Ave and Santa Fe Ave	71.6	72.4	0.8
between Fries Ave and Avalon Blvd	66.1	66.2	0.1
between I-710 SB and NB Ramps	69.8	69.8	0
W HARRY BRIDGES BLVD			
between Wilmington Blvd and Neptune Ave	71.5	72.6	1.1
between Hawaiian Ave and Wilmington Blvd	72	72.7	0.7
between Neptune Ave and Fries Ave	70.9	71.3	0.4
between Figueroa St and Mar Vista Ave	72	72.6	0.6
between Fries Ave and Avalon Blvd	72.2	73.4	1.2
between Mar Vista Ave and Hawaiian Ave	72	72.7	0.7
W I ST			
n/o Anaheim St	62.6	63.2	0.6
W PACIFIC COAST HIGHWAY			
between I-110 SB off ramp and Figueroa S	69.1	68.7	0
w/o I-110 SB off ramp	69.3	69.0	-0.4
between I-710 NB and SB ramps	72.7	74.2	-0.3
e/o San Gabriel Ave	73.9	74.7	1.5
between San Gabriel Ave and Santa Fe Ave	73.9	74.8	0.8
e/o Wilmington Blvd	69.3	69.4	0.9
e/o Figueroa St	69.1	69.3	0.1
between Neptune Ave and Avalon Blvd	69.3	69.4	0.2
between Terminal Island Fwy SB and NB ra	72.6	74.0	1.4
e/o Santa Fe Ave	73.7	74.7	1
e/o Harbor Ave	72.5	74.0	1.5
w/o Termial Island Fwy	72.5	73.7	1.2
W PANORAMA DR			
between Queens Hwy and Harbor Scenic Dr	68.8	70.9	2.1
between Harbor Scenic Dr and Pier J Way	69.5	70.8	1.2
W SEPULVEDA BLVD			
e/o SB I-110 off Ramp	71.1	70.9	-0.2

w/o NB I-110 off ramp	71.1	71.0	-0.1
w/o Figueroa St	70.2	70.0	-0.2
e/o Figueroa St	68	67.2	-0.8
between SB and NB I-110 Ramps	71.1	71.0	-0.1
W WATER ST			
between Fries Ave and Avalon Blvd	63.3	68.2	4.9
W WILLOW ST			
between NB and SB Terminal Island Fwy	71.7	68.6	-3.1
between Terminal Island Fwy and Santa Fe	69.1	69.0	-0.1
between Santa Fe Ave and Easy Ave	68.9	68.8	-0.1
e/o Easy Ave	70	69.7	-0.3
w/o SB I-710 ramps	69	68.6	-0.4
w/o NB I-710 on ramp	69.5	68.8	-0.7
SAN DIEGO FWY			
SB e/o Wilmington Ave	75	75.0	0
SB w/o Wilmington Ave	75.3	75.3	0
SB s/o Carson St	75.2	75.2	0
NB n/o Carson St	76.3	76.3	0
NB n/o 213th St	75.8	75.8	0
NB e/o Avalon Blvd	76.4	76.4	0
SB e/o Avalon Blvd	75.6	75.6	0
NB w/o Avalon Blvd	77	77.0	0
SB e/o Avalon Blvd	75.8	75.8	0
NB w/o Wilmington Ave	75.7	75.7	0
NB e/o 218th St	76.3	76.3	0
SB e/o Avalon Blvd	75.6	75.6	0
NB s/o Carson St	75.7	75.7	0
SB n/o Carson St	75.6	75.6	0
SAN GABRIEL AV			
n/o PCH	66	66.0	0
TERMINAL ISLAND FWY			
s/o PCH	73.8	73.8	0
n/o PCH	72.8	72.8	0
n/o Ocean Blvd	74.6	74.6	0
NB s/o PCH	74.2	74.2	0
SB n/o PCH	73.1	73.1	0
NB between Off and loop On ramp at PCH	74.2	74.2	0
NB s/o PCH off ramp	77	77.0	0
SB n/o Anaheim St	72.2	72.2	0
NB between Henry Ford Ave and Anaheim St	75.6	75.6	0
NB n/o Ocean Blvd	73.6	73.6	0
SB n/o Ocean Blvd	72	72.0	0

s/o Henry Ford Ave	75.1	75.1	0
SB s/o Henry Ford Ave	74.1	74.1	0
e/o Seaside Ave	73.5	73.5	0
SB s/o Anaheim Way	75	75.0	0
NB s/o Willow St	69.9	69.9	0
SB s/o PCH on ramp	75	75.0	0
SB s/o PCH	73.9	73.9	0
NB n/o PCH	73.2	73.2	0
SB between loop Off and On ramp at PCH	73.8	73.8	0
SB s/o Henry Ford Ave	74.1	74.1	0
s/o Henry Ford Ave	75.2	75.2	0
TERMINAL WAY			
w/o Ferry St	73.4	73.4	0
w/o Eaire St	73.3	73.3	0
s/o Navy Way	73.2	73.2	0
s/o Navy Way	70.8	70.8	0
s/o Navy Way	73.2	73.2	0
s/o Navy Way	69.9	69.9	0
s/o Navy Way	70	70.0	0
s/o Navy Way	71.5	71.5	0
W 9TH ST			
e/o Caspian Ave	64.1	64.1	0
s/o Anaheim St	67.5	67.5	0
e/o Santa Fe Ave	65.7	65.7	0
w/o Caspian Ave	64.1	64.1	0
n/o Pier B St	62.6	62.6	0
w/o Santa Fe Ave	68.5	68.5	0
s/o Pier B St	72.4	72.4	0
n/o Pier B St	67.8	67.8	0
W ANAHEIM ST			
e/o Harbor Ave	67.8	67.8	0
e/o Santa Fe Ave	72.4	72.4	0
w/o Harbor Ave	70.3	70.3	0
w/o Seabright Ave	71.2	71.2	0
w/o E I St	69.2	69.2	0
w/o Figueroa PL	69.4	69.4	0
between Wilmington and Neptune Ave	64.4	64.4	0
between Frigate Ave and Wilmington Blvd	64.6	64.6	0
e/o Neptune	64.2	64.2	0
between Neptune Ave and Fries Ave	64.3	64.3	0
w/o Frigate Ave	64.5	64.5	0
e/o Figueroa PL	69.4	69.4	0
between Seabright Ave and Santa Fe Ave	71.1	71.1	0

between Fries Ave and Avalon Blvd	64.8	64.8	0
between I-710 SB and NB Ramps	67.9	67.9	0
W HARRY BRIDGES BLVD			
between Wilmington Blvd and Neptune Ave	72	72.0	0
between Hawaiian Ave and Wilmington Blvd	71.8	71.8	0
between Neptune Ave and Fries Ave	71	71.0	0
between Figueroa St and Mar Vista Ave	71.7	71.7	0
between Fries Ave and Avalon Blvd	72.5	72.5	0
between Mar Vista Ave and Hawaiian Ave	71.8	71.8	0
W I ST			
n/o Anaheim St	64.1	64.1	0
W PACIFIC COAST HIGHWAY			
between I-110 SB off ramp and Figueroa S	68.1	68.1	0
w/o I-110 SB off ramp	68.4	68.4	0
between I-710 NB and SB ramps	72.8	72.8	0
e/o San Gabriel Ave	74.4	74.4	0
between San Gabriel Ave and Santa Fe Ave	74.2	74.2	0
e/o Wilmington Blvd	68.8	68.8	0
e/o Figueroa St	68.6	68.6	0
between Neptune Ave and Avalon Blvd	69.3	69.3	0
between Terminal Island Fwy SB and NB ra	72.5	72.5	0
e/o Santa Fe Ave	74.6	74.6	0
e/o Harbor Ave	72.7	72.7	0
w/o Termial Island Fwy	71.2	71.2	0
W PANORAMA DR			
between Queens Hwy and Harbor Scenic Dr	71.4	71.4	0
between Harbor Scenic Dr and Pier J Way	72.3	72.3	0
W SEPULBEDA BLVD			
e/o SB I-110 off Ramp	68.7	68.7	0
w/o NB I-110 off ramp	69.4	69.4	0
w/o Figueroa St	69	69.0	0
e/o Figueroa St	66.7	66.7	0
between SB and NB I-110 Ramps	68.8	68.8	0
W WATER ST			
between Fries Ave and Avalon Blvd	65.4	65.4	0
W WILLOW ST			
between NB and SB Terminal Island Fwy	70.9	70.9	0
between Terminal Island Fwy and Santa Fe	67.7	67.7	0
between Santa Fe Ave and Easy Ave	67.7	67.7	0
e/o Easy Ave	69.7	69.7	0
w/o SB I-710 ramps	66.9	66.9	0
w/o NB I-710 on ramp	67.6	67.6	0

None of the noise-sensitive uses that would be affected by operation of the Reduced Project are in the City of Los Angeles. Roadways in the City of Los Angeles would experience project-related increases in noise exceeding 3 dBA. However, none of those roadways have sensitive uses nearby.

Sleep Disturbance

Table F1-40 summarizes the operational Reduced Project train horn SEL at nearby residences and an assessment of sleep disturbance. Interior SELs with windows closed with the train horn would be as high as 64.0, 65.9, and 64.0 dB at the East I St, Mauretania St, and Cruces St residences, respectively. Based on the FICAN 1997 curve, approximately 5% of the exposed population at each residence would be expected to be awakened by train horn soundings associated with the Reduced Project Alternative. Interior SELs with windows open from train horn soundings would be as high as 72.0, 73.9 and 72.0 dB at the respective residences. When compared with the FICAN curve, approximately 7%, 8%, and 7% of the exposed population at the residences at 1919 East I Street, 1710 Mauretania Street, and 1619 Cruces Street, respectively, would be expected to be awakened by train horn soundings associated with the Reduced Project Alternative. Single event awakenings would occur at a frequency below 10%.

Table F1-40. Summary of the Predicted SCIG Train Horn SEL at Nearby Residences and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Measured Ambient Exterior Leq, dBA	Ambient Interior Leq, dBA[1]	Predicted SCIG Train Horn Exterior SEL, dBA	Predicted SCIG Train Horn Interior SEL w/ Windows Closed, dBA [1]	Approximate Percentage of Exposed Population Expected to be Awakened [2]	Predicted SCIG Train Horn Interior SEL w/ Windows Open, dBA[3]	Approximate Percentage of Exposed Population Expected to be Awakened [2]
R28	Residence at 1919 East I St	Day: 58.6 – 81.1	Day: 38.6 – 61.1	84.0	64.0	5%	72.0	7%
R29	Residence at 1710 Mauretania St	Day: 66.2 – 70.4 Lowest Night: 60.6	Day: 46.2 – 50.4 Lowest Night: 40.6	85.9	65.9	5%	73.9	8%
R32	Residence at 1619 Cruces St	Day: 64.9 – 67.2 Lowest Night: 59.4	Day: 44.9 – 47.2 Lowest Night: 39.4	84.0	64.0	5%	72.0	7%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
2 Based on FICAN 1997 Sleep Disturbance Curve.
3 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

School Classroom Speech Intelligibility

There are no schools located in the City of Los Angeles within the immediate vicinity of the Project Site; thus, construction and operations noise would not affect speech intelligibility in classrooms.

5.1.2. Predicted Noise Levels – City of Long Beach

Construction

The analysis of construction-related noise levels in the City of Long Beach included data from twelve different receptor locations: the back yard of a residence at 2789 Webster Street, the Buddhist temple at Willow and Webster streets, the playground of the Hudson Elementary School, Hudson Park, the building setback of Cabrillo High School, the Cabrillo Child Development Center, Bethune School, the Century Villages at Cabrillo, Cabrillo Park, the playground of Stephens Middle School, Webster School, and the Mambo Sound & Recording Studio. The predicted construction noise levels are presented in Table F1-41. This data represents the worst-case daytime construction noise levels expected, assuming all construction elements occur simultaneously.

Considering the distances between the construction noise sources and receivers, the standard controls and noise barriers may not be sufficient to reduce the projected increase in ambient noise levels to the point where they would no longer be substantial. Exterior daytime construction noise levels (L50) from the proposed Reduced Project would be expected to be as high as 63.5, 65.8, 70.2, 70.4, 57.8, 70.9, 68.8, 62.9, 66.1, and 57.5 at the Webster residence, Buddhist Temple, Hudson School, Hudson Park, Cabrillo High School, Cabrillo Child Development Center, Bethune School, the Century Villages atCabrillo, Cabrillo Park, and Stephens Middle School, respectively. The construction noise levels would exceed ambient noise levels by more than 3 dB at each of these receptor locations. The future daytime construction noise at the Webster School and at Mambo Sound & Recording Studio would be 47.0 dBA and 55.2 dBA, respectively. Construction noise levels at these receivers would be below ambient noise levels and maximum noise levels allowed by the Long Beach Municipal Code.

Nighttime construction noise levels from the PCH grade separation would be expected to be as high as 33.3, 36.3, 50.7, and 47.6 dBA at the Webster residence, Buddhist Temple, Century Villages at Cabrillo and Mambo Sound & Recording Studio, respectively. Table F1-42 summarizes the nighttime construction noise levels. The increase in noise would not be expected to be more than 3 dB above ambient levels at any of the receptors. Nighttime construction noise was not evaluated for the nearby school and park uses because they are not expected to be operating during the nighttime hours.

Table F1-41. Summary of the Predicted Daytime Construction Noise Levels for SCIG Construction

Receptor Number	*Receptor Location*	*Measured Ambient Noise Level L50, dBA*	*Approximate Distance to Nearest Construction Area, feet*	*Predicted Daytime Construction Noise Level – Worst Case April 2013, dBA*	*Predicted Daytime Construction Noise Level – Worst Case Month 2013, dBA*	*City of Long Beach Daytime Noise Ordinance, Exterior Standard, L50, dBA*[1]
R1	Residence at 2789 Webster – rear yard	Day: 45.2 - 51.6 Night: 37.7 - 46.3	275	61.5	63.5	50
R2	Buddhist Temple at Willow and Webster	Day: 58.6 - 60.2 Night: 46.1 - 57.4	375	65.7	65.8	50
R3	Hudson Elementary School - playground	Day: 56.3 - 64.1	300	65.4 – 70.1	65.5 - 70.2	50
R4	Hudson Park	Day: 62.4 – 64.3	300	70.3	70.4	50
R5	Cabrillo High School – building setback	Day: 52.6 - 58.1	1,700	57.0	57.8	50
R6	Cabrillo Child Development Center	Day: 61.5 – 65.3	300	70.0	70.9	50
R7	Bethune School	Day: 61.5 – 65.3	300	68.8	68.8	50
R7A	Century Villages at Cabrillo	Day: 59.2 – 63.2 Night: 51.1 - 58.6	500	62.9	62.9	50
R7B	Cabrillo Park	Day: 60.2 – 65.2	400	66.1	66.1	50
R30	Stephens Middle School - playground	Day: 52.0 – 64.2	600	57.5	57.5	50
R31	Webster School	Day: 48.3 – 58.0	2,750	47.0	47.0	50
R34	Mambo Sound & Recording Studio	Day: 62.8 – 68.4 Night: 58.0 – 63.4	1,500	55.2	55.2	50

Notes:
[1] Noise standard for a cumulative period of 30 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased by 5 dB increments to encompass or reflect ambient level.

Table F1-42. Summary of the Predicted Nighttime Construction Noise Levels for SCIG Construction

Receptor Number	*Receptor Location*	*Predicted Nighttime Exterior Construction Noise Level – Worst Case 2013, dBA*	*Measured Nighttime Ambient Noise Level, dBA* [1]	*Predicted Increase in Ambient Noise Level with Nighttime Construction, dB*	*City of Long Beach Noise Ordinance, Nighttime Exterior Standard, L50, dBA* [2]
R1	Residence at 2789 Webster – rear yard	33.3	37.7	+1.3	45
R2	Buddhist Temple at Willow and Webster	36.3	46.1	+0.4	45
R7A	Century Villages at Cabrillo	50.7	51.1	+2.8	45
R34	Mambo Sound & Recording Studio	47.6	58.0	+0.4	45

[1] – Lowest Nighttime Ambient Noise Level, L50.
[2] –Nighttime noise standard for a cumulative period of 30 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods.

Classroom Interior Construction Noise Levels

Future interior noise levels within classrooms were analyzed to evaluate the Reduced Project construction on school facilities (impacts to students' ability to study). Future interior construction noise levels were calculated by subtracting the measured noise reduction from the predicted exterior construction noise levels from the Reduced Project. As summarized in Table F1-43, the future interior classroom construction noise would be 42.7 dBA at Bethune School, 42.3 dBA at Cabrillo Child Development Center, and 13.4 dBA at Cabrillo High School. At Hudson School, the future interior construction noise would be 32.5 dBA, while at Stephens Middle School; the interior construction noise level would be 19.2 dBA. At Webster School, the interior construction noise level would be 8.4 dBA. Interior construction noise levels with ambient noise would be below the LBMC allowable daytime interior noise standard of 45 dBA at all educational receivers, except for at the Cabrillo Child Development Center. The future interior construction noise level at the Cabrillo Child Development Center would be 46.1 dBA and would exceed the LBMC interior threshold of 45 dBA.. When compared to existing ambient noise levels, future interior construction noise levels would be below existing ambient noise levels within the classrooms with exception of Bethune School. At this location, a greater than 5 dB increase would be experienced during the heaviest periods of construction activity (although noise levels would not exceed the LBMC 45 dBA noise standard).

Table F1-43. Summary of the Project's Construction Noise Levels within Classrooms

Receiver Number	*Location*	*Description*	*Future Exterior Construction Noise Level, L50, dBA*	*Noise Reduction, dB*	*Future Interior Construction Noise Level, L50, dBA*	*Ambient Interior Noise Level, L50, dBA*	*Future Interior Construction Noise Level with Ambient, L50, dBA*	*Predicted Increase in Ambient Noise Level with Construction Noise, dB*
R3	Hudson School	Classroom 52	65.5	33	32.5	36.9	38.2	1.3
R5	Cabrillo High School	Classroom 1128	57.8	44.4	13.4	32.7	32.8	0.1
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	70.9	28.6	42.3	43.7	46.1	2.4
R7	Bethune School	Classroom 102	68.8	26.1	42.7	38.8	44.2	5.4
R30	Stephens Middle School	Classroom PC2	57.5	38.3	19.2	31.4	31.7	0.3
R31	Webster School	Classroom B-48	47.0	38.6	8.4	31.9	31.9	0.0

On-Site and Rail Corridor Operations

As summarized in Table F1-36, on-site operational noise at the Reduced SCIG Project and alternate business location facilities would consist of truck activity, maintenance, train activity, and container loading and unloading operations. On-site SCIG operations would generate noise levels ranging from 59 to 95 dBA at a distance of 100 feet from the source. Future rail movements along the San Pedro Branch line would include diesel engine noise, train horns, and railcar noises. According to BNSF, train horn soundings are not expected to occur on the San Pedro Branch line due to the Reduced Project's design features. As previously summarized in Table F1-37, the Predicted Future CNEL for San Pedro Branch Line operations would range from 47.1 to 56.1 dBA at the nearest sensitive receptor locations.

Predicted daytime Reduced Project on-site and rail corridor operational noise levels at sensitive receivers (Table F1-44) would exceed existing measured ambient noise levels by 3 dBA or greater at the residence at 2789 Webster (R1). At the residence on Webster, the predicted noise level of 54.3 dBA would exceed the ambient noise levels by 3 dBA or greater during most periods. The remaining eleven receiver locations would experience predicted daytime operational noise levels either lower than the existing ambient levels or within a 3 dBA increase.

Nighttime on-site and rail corridor operational noise levels would result in an increase of 3 dB or greater over existing measured ambient noise levels at the residence at 2789 Webster (R1), at the Buddhist Temple (R2) and at the Century Villages at Cabrillo (R7A). At the residence on Webster, the predicted noise level of 54.3 dBA would consistently exceed the nighttime ambient noise level range of 37.7 to 46.3 dBA by 3 dB or more. The nighttime operational noise level at the Buddhist Temple of 48.8 dBA would result in an increase of at least 3 dB over the ambient noise levels during quieter nighttime periods. At the Century Villages at Cabrillo, future nighttime operational noise levels would reach 54.1 dBA and would occasionally result in an ambient level increase over 3 dBA. The nighttime noise increases that would be experienced at the Webster residence, Buddhist Temple and Century Villages at Cabrillo would occur when normal "full blown" operations coincide with the low background noise. This condition is not expected to occur on a daily basis and for more than one hour in any given 24-hour period. The remaining receiver locations either do not have nighttime land uses or would experience predicted operational noise levels lower than the existing nighttime ambient levels.

Table F1-44. Predicted Reduced Project Operational Noise Levels

Receptor Number	*Receptor Location*	*Predicted Reduced Project Operational Noise Level –Year 2023, L50, dBA**	*Measured Ambient Noise Level, L50, dBA*[1]	*Predicted Largest Increase in Ambient Noise Level with Operations Noise, dB*	*City of Long Beach Noise Ordinance, Exterior Standard, L50, Daytime/Nighttime dBA*[2]
R1	Residence at 2789 Webster – rear yard	54.3	Day: 45.2 - 51.6 Night: 37.7 - 46.3	Day +9.6 Night +16.7	Day 50 Night 45
R2	Buddhist Temple at Willow and Webster	48.8	Day: 58.6 - 60.2 Night: 46.1 - 57.4	Day +0.4 Night +4.6	Day 50 Night 45
R3	Hudson Elementary School - playground	53.5	Day: 56.3 - 64.1	Day +1.8	Day 50
R4	Hudson Park	54.5	Day: 62.4 – 64.3	Day +0.7	Day 50
R5	Cabrillo High School – building setback	51.1	Day: 52.6 - 58.1	Day +2.3	Day 50
R6	Cabrillo Child Development Center	54.6	Day: 61.5 – 65.3	Day +0.8	Day 50
R7	Bethune School	54.6	Day: 61.5 – 65.3	Day +0.8	Day 50
R7A	Century Villages at Cabrillo	54.1	Day: 59.2 – 63.2 Night: 51.1 - 58.6	Day +1.2 Night +4.8	Day 50 Night 45
R7B	Cabrillo Park	54.8	Day: 60.2 – 65.2	Day +1.1	Day 50
R30	Stephens Middle School - playground	50.8	Day: 52.0 – 64.2	Day +2.5	Day 50
R31	Webster School	45.4	Day: 48.3 – 58.0	Day +1.8	Day 50
R34	Mambo Sound & Recording Studio	45.6	Day: 62.8 – 68.4 Night: 58.0 – 63.4	Day +0.1 Night +0.2	Day 50 Night 45

Notes:
[1] Refer to Table F1-4, Summary of Ambient Noise Measurement Data
[2] Noise standard for a cumulative period of 30 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased by 5 dB increments to encompass or reflect ambient level.
* Includes relocation of existing tenants

Existing Plus Project Traffic Noise Levels

Table F1-38 previously summarized the predicted roadway traffic noise levels once the Reduced Project is in full operation. Portions of the following roadways in the City of Long Beach include noise-sensitive land uses that would be expected to experience future traffic noise levels above 70 CNEL: E. Anaheim St., E. Sepulveda Boulevard, Pacific Coast Highway, Long Beach Freeway and the Terminal Island Freeway. Traffic noise levels above 70 CNEL are considered incompatible with noise guidelines.

The Reduced Project's predicted noise level increase over existing levels is summarized in Table F1-39. Roadways in Long Beach with noise-sensitive land uses would not experience a Project increase in traffic noise level exceeding 3 dB. The majority of roadways within the City would experience a traffic noise decrease as a result of the Project because the Project would reduce truck traffic on local roadways in lieu of rail movements.

Traffic noise levels along portions of the Long Beach Freeway would range from 85.3CNEL to 87.7 CNEL and would be above the compatibility threshold of 70 CNEL. However, traffic noise for all segments of the Long Beach Freeway would decrease from existing levels due to reduced truck traffic of the Reduced Project.

Classroom Interior Operational Noise Levels

Interior noise levels within classrooms were analyzed to assess the effect of the Reduced Project's on-site and rail corridor operational noise on school facilities. Future interior noise levels were calculated by subtracting the measured noise reduction from the predicted exterior operations noise levels from the Reduced Project. As summarized in Table F1-45, the interior classroom noise levels with proposed Reduced Project operations would be 28.5 dBA at Bethune School, 26.0 dBA at Cabrillo Child Development Center, and 6.7 dBA at Cabrillo High School. At Hudson School, the future interior operational noise would be as high as 20.5 dBA, while at Stephens Middle School, the interior operational noise level would be 12.5 dBA. At Webster School, the interior operations noise level would be 6.8 dBA. Future operations noise levels would be below the LBMC allowable interior noise standard of 45 dBA. When compared to existing ambient noise levels, future interior operations noise levels would be below existing noise levels within the classrooms.

Table F1-45. Summary of the Reduced Project's Operational Noise Levels within Classrooms

Receiver Number	*Location*	*Description*	*Future Exterior Operations Noise Level, dBA*	*Noise Reduction, dB*	*Future Interior Operations Noise Level, dBA*	*Measured Ambient Interior Noise Level, dBA*	*Existing Ambient Plus Project Interior Noise Levels, dBA*	*Increase in Ambient Interior Noise Level with Project Contribution, dBA*	*City of Long Beach Noise Ordinance Interior Noise Level for Schools, L8, dBA*[1]
R3	Hudson School	Classroom 52	53.5	33	20.5	36.9	37.0	0	45
R5	Cabrillo High School	Classroom 1128	51.1	44.4	6.7	32.7	32.7	0	45
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	54.6	28.6	26.0	43.7	43.8	0	45
R7	Bethune School	Classroom 102	54.6	26.1	28.5	38.8	39.2	0.5	45
R30	Stephens Middle School	Classroom PC2	50.8	38.3	12.5	31.4	31.5	0	45
R31	Webster School	Classroom B-48	45.4	38.6	6.8	31.9	31.9	0	45

Notes:
[1] Noise standard for a cumulative period of 5 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased to reflect ambient level.
* Includes relocation of existing tenants

Construction Vibration

Construction operations involving heavy equipment can generate high vibration levels that can affect sensitive receptors such as the nearby schools and residences. A site survey was conducted to determine if there were nonresidential vibration sensitive receptors (microelectronics firms, recording studios, research laboratories, etc. that employ vibration sensitive equipment) in the vicinity of the Project site and associated haul routes. Mambo Sound & Recording Studio, located southeast of the Project site at 2200 W Esther St., was identified as a vibration sensitive receptor. A technology park was identified approximately 1,100 feet east of the Project site, well enough away so that on site generated vibration would not affect these office uses. In addition, the construction haul route would be expected to be primarily on Pacific Coast Highway to and from the Project site. Truck vibration would not be expected to exceed existing vibration generated by truck traffic on Pacific Coast Highway; thus, no increase in vibration would be expected. Table F1-46 summarizes typical construction vibration levels as reported by the FTA. Construction vibration can range between 58 to 112 VdB when measured at a distance of 25 feet from the source. Table F1-47 summarizes the future construction vibration. The future maximum vibration level at Stephens Middle School, designated location V1, would be as high as 63 VdB, while existing ambient levels are 51.6 to 64.3 VdB. The predicted vibration level at location V2, Hudson Elementary School, would be as high as 72 VdB and above the existing ambient levels of 55.9 to 69.0 VdB. Future vibration levels at the Cabrillo Child Development Center and Bethune School would be 72 VdB at each location, and their respective existing ambient levels are 58.9 to 75.5 VdB and 62.6 to 79.4 VdB, respectively. Predicted vibration levels from Project construction would occasionally exceed existing ambient vibration measurements at Receivers V1 to V4 but would be clearly below the FTA vibration impact criteria of 75 VdB. At Mambo Sound and Recording Studio (V13), the predicted construction vibration level would reach upwards of 49 VdB; however, this would be well below the FTA impact criteria of 65 VdB for sensitive buildings and would not exceed the existing ambient velocity levels ranging from 86.9 to 106.2 VdB.

Locations V5 through V9 are situated away from the Project Site (4,200-17,500 feet); thus, future vibration levels from construction, ranging from 19 VdB to 37 VdB, would be significantly lower than the existing ambient vibration levels. The predominant source of existing vibration, as identified in the existing conditions sections, is heavy truck movement on existing roadways and haul routes. Although the number of vibration events would increase accordingly with Project truck movements, future vibration levels from Project construction operations would not be expected to exceed existing levels.

Table F1-46. Vibration Source Levels for Construction Equipment

Equipment	*Approximate Velocity Level @ 25 ft, VdB Re: 1 micro inch/sec*
Pile Driver Impact typical range	112
Pile Driver Sonic typical range	93
Clam Shovel Drop	94
Hydromill in Soil	66
Vibratory Roller	94
Hoe Ram	87
Large Bulldozer	87
Caisson Drilling	87
Loaded Trucks	86
Jackhammer	79
Small Bulldozer	58

Source: FTA, 2006

Table F1-47. Predicted Construction Vibration Levels

Location	*Description*	*Distance to Nearest Construction Area, ft*	*Range of Predicted Construction Vibration Levels, VdB*	*Existing Ambient Velocity Level, VdB Lmax, VdB*		*FTA Impact Criteria, VdB*
				Low	*High*	
V1	Stephens Middle School Classroom PC2	600	17 - 63	51.6	64.3	75
V2	Hudson Elementary School Playground	300	26 - 72	55.9	69.0	75
V3	Cabrillo Child Development Center	300	26 - 72	58.9	75.5	75
V4	Bethune School	300	26 - 72	62.6	79.4	75
V13	Mambo Sound & Recording Studio	1,500	9 - 49	86.9	106.2	65

Operational Vibration

Trains from the proposed Project would use a portion of the San Pedro Branch Line during daily operations. Future vibration levels from Reduced Project rail operations are summarized in Table F1-48.

Receiver locations V1 through V4 are in close proximity with the San Pedro Branch line (approximately 300 to 600 feet), and could be affected by ground-borne vibration from future train movements. The future maximum vibration level at Stephens Middle School, designated location V1, would be 54.8 VdB, while existing ambient levels are 51.6 to 64.3 VdB. The predicted vibration level at location V2, Hudson Elementary School, would be 55.4 VdB and below the existing ambient levels of 55.9 to 69.0 VdB. Future vibration levels at the Cabrillo Child Development Center and Bethune School would be 58.2 VdB and 59.2 VdB, respectively, and their

existing ambient levels would be 58.9 to 75.5 VdB and 62.6 to 79.4 VdB, respectively. At the Mambo Sound & Recording Studio, the predicted velocity level from Project trains would be 58.3 VdB, well below the existing maximum vibration levels ranging from 86.9 to 106.2 VdB. Predicted vibration levels from Reduced Project train movements would not exceed existing ambient vibration measurements at Receivers V1-V4 and V13 and would be clearly below the FTA vibration impact criteria.

Locations V5 through V9 are situated away from the San Pedro Branch line (4,200-17,500 feet); thus, future vibration levels from Project train movements, ranging from 24 VdB to 36 VdB, would be significantly lower than the existing ambient vibration levels. The predominant source of existing vibration, as identified in the existing conditions sections, is heavy truck movement on existing roadways and haul routes. Although the number of vibration events would increase accordingly with Reduced Project truck movements, future vibration levels from operations would not be expected to exceed existing levels.

Table F1-48. Predicted Future Train Vibration on the San Pedro Branch Line

Receiver Location	*Description*	*Predicted Velocity Level from Project Train Movements, VdB*	*Existing Ambient Velocity Level, Lmax, VdB*		*FTA Impact Criteria, VdB*
			Low	*High*	
V1	Stephens Middle School Classroom	54.8	51.6	64.3	75
V2	Hudson Elementary School Playground	55.4	55.9	69	75
V3	Cabrillo Child Development Center	58.2	58.9	75.5	75
V4	Bethune School	59.2	62.6	79.4	75
V13	Mambo Sound & Recording Studio	58.3	86.9	106.2	65

Predicted vibration levels from the Reduced Project train movements within Long Beach would not exceed existing ambient vibration measurements. Likewise, predicted vibration levels would not exceed the FTA Impact Criteria for ground-borne vibration.

Sleep Disturbance

Nighttime construction activity also has the potential to cause sleep disturbances at the nearest residential/sensitive receptors. Nighttime construction noise was analyzed by assuming the worst case hour during the nighttime. The potential for sleep disturbance was assessed by comparing the construction related nighttime interior noise levels with the FICAN 1997 sleep disturbance curves. Interior SELs with windows closed from nighttime construction activity would be as high as 48.9, 51.9 and 66.3 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, approximately 2%, 3% and 7% of exposed population at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively, would be expected to be awakened due to the highest levels of construction activity. Interior SELs with windows open from nighttime construction activity would be as high as 56.9, 59.9 and 74.3 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, approximately 3%, 4% and 8% of exposed population at each respective location would be expected to be awakened due to the highest levels of construction activity. For periods of less intensive construction activity, the percentage of awakenings would be lower. Table F1-53 summarizes the nighttime construction noise SEL and sleep disturbance for these receptors. Single event awakenings would occur at a frequency below 10%.

Table F1-54 summarizes the predicted Reduced Project train horn SEL at nearby residences and an assessment of sleep disturbance. Interior SELs with windows closed from the SCIG Train Horn would be as high as 25.1, 27.2 and 32.5 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, none of the exposed population at these residences would be expected to be awakened due to train horn SEL. Interior SELs with windows open from the SCIG train horns would be 33.1, 35.2 and 40.5 dBA at the Webster residence, Buddhist Temple and Century Villages at Cabrillo, respectively. When assessed with the FICAN curve, approximately 0%, 0% and 1% of exposed population at each respective location would be expected to be awakened due to the reduced Project train horns. Single event awakenings would occur at a frequency below 10%.

Table F1-49. Summary of the Predicted Nighttime Construction Noise SEL for SCIG Construction and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Predicted Nighttime Exterior Construction Noise Level – Worst Case 2013, dBA	Predicted Nighttime Exterior SEL – Worst Case 2013, dBA [1]	Predicted Nighttime Interior SEL w/ Windows Closed – Worst Case 2013, dBA [2]	Approximate Percentage of Exposed Population Expected to be Awakened [3]	Predicted Nighttime Interior SEL w/ Windows Open – Worst Case 2013, dBA [4]	Approximate Percentage of Exposed Population Expected to be Awakened [3]
R1	Residence at 2789 Webster – rear yard	33.3	68.9	48.9	2%	56.9	3%
R2	Buddhist Temple at Willow and Webster	36.3	71.9	51.9	3%	59.9	4%
R7A	Century Villages at Cabrillo	50.7	86.3	66.3	7%	74.3	8%

1 SEL is calculated from Leq+35.6, dB.
2 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
3 Based on FICAN 1997 Sleep Disturbance Curve.
4 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

Table F1-50. Summary of the Predicted SCIG Train Horn SEL at Nearby Residences and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Predicted SCIG Train Horn Exterior SEL, dBA	Predicted SCIG Train Horn Interior SEL w/ Windows Closed, dBA[1]	Approximate Percentage of Exposed Population Expected to be Awakened [2]	Predicted SCIG Train Horn Interior SEL w/ Windows Open, dBA [3]	Approximate Percentage of Exposed Population Expected to be Awakened [2]
R1	Residence at 2789 Webster – rear yard	45.1	25.1	0%	33.1	0%
R2	Buddhist Temple at Willow and Webster	47.2	27.2	0%	35.2	0%
R7A	Century Villages at Cabrillo	52.5	32.5	0%	40.5	1%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
2 Based on FICAN 1997 Sleep Disturbance Curve.
3 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

School Classroom Speech Intelligibility

Construction noise experienced within the classrooms has the potential to interfere with speech intelligibility between the teacher and the student. Table F1-51 summarizes the interior construction noise within classrooms and the speech intelligibility between a teacher and student separated by 20 feet. The analysis and assessment considers both a normal and raised voice speech level between a teacher and student. Future interior construction noise would be as high as 38.2, 32.8, 46.1, 44.2, 31.7 and 31.9 dBA at Hudson School, Cabrillo High School, Cabrillo Child Development Center, Bethune School, Stephens Middle School, and Webster School, respectively. When compared with the USEPA curve for speech intelligibility, there would be greater than 95% normal voice satisfactory conversation speech intelligibility at all locations. Similarly, there would be greater than 95% raised voice satisfactory conversation speech intelligibility at all locations. When the distance between the teacher and student is less than 20 feet, speech intelligibility would be expected to be greater.

The Reduced Project's on-site and rail corridor operational noise experienced within the classrooms also has the potential to interfere with speech intelligibility. Table F1-52 summarizes the interior operations noise levels within classrooms and the speech intelligibility between a teacher and student separated by 20 feet. The analysis and assessment considers both a normal and raised voice speech level between a teacher and student. Future interior operations noise levels would be as high as 37.0, 32.7, 43.8, 39.2, 31.5 and 31.9 dBA at Hudson School, Cabrillo High School, Cabrillo Child Development Center, Bethune School, Stephens Middle School, and Webster School, respectively. When compared with the USEPA curve for speech intelligibility, there would be greater than 95% normal voice satisfactory conversation speech intelligibility and greater than 95% raised voice satisfactory conversation speech intelligibility at all locations. When the distance between the teacher and student is less than 20 feet, speech intelligibility would be expected to be even greater.

Reduced Project train horn soundings near the intersection of the Alameda Corridor and Pacific Coast Highway also have the potential to affect speech intelligibility within classrooms. Table F1-53 summarizes the interior train horn noise levels within classrooms and the speech intelligibility between a teacher and student separated by 20 feet. The analysis and assessment considers both a normal and raised voice speech level between a teacher and student. Future interior train horn noise levels would be as high as 17.1, 5.4, 23.9, 26.6, 7.3 and 1.5 dBA at Hudson School, Cabrillo High School, Cabrillo Child Development Center, Bethune School, Stephens Middle School, and Webster School, respectively. When compared with the USEPA curve for speech intelligibility, there would be greater than 95% normal and raised voice satisfactory conversation speech intelligibility at all locations.

Table F1-51. Summary of the Predicted Daytime Construction Noise within Classrooms and Speech Intelligibility Assessment.

Receiver Number	Location	Description	Ambient Interior Noise Level, L50, dBA	Predicted Future Interior Construction Noise Level with Ambient, L50, dBA[1]	Normal Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]	Raised Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]
R3	Hudson School	Classroom 52	36.9	38.2	Greater than 95%	Greater than 95%
R5	Cabrillo High School	Classroom 1128	32.7	32.8	Greater than 95%	Greater than 95%
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	43.7	46.1	Greater than 95%	Greater than 95%
R7	Bethune School	Classroom 102	38.8	44.2	Greater than 95%	Greater than 95%
R30	Stephens Middle School	Classroom PC2	31.4	31.7	Greater than 95%	Greater than 95%
R31	Webster School	Classroom B-48	31.9	31.9	Greater than 95%	Greater than 95%

1 Data from Table F1-41.
2 Based on FICAN – USEPA Speech Intelligibility Curve, 1974.

Table F1-52. Summary of the Reduced Project's Operational Noise within Classrooms and Speech Intelligibility Assessment.

Receiver Number	Location	Description	Ambient Interior Noise Level, dBA	Existing Ambient Plus Project Interior Noise Levels, dBA[1]	Normal Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]	Raised Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]
R3	Hudson School	Classroom 52	36.9	37.0	Greater than 95%	Greater than 95%
R5	Cabrillo High School	Classroom 1128	32.7	32.7	Greater than 95%	Greater than 95%
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	43.7	43.8	Greater than 95%	Greater than 95%
R7	Bethune School	Classroom 102	38.8	39.2	Greater than 95%	Greater than 95%
R30	Stephens Middle School	Classroom PC2	31.4	31.5	Greater than 95%	Greater than 95%
R31	Webster School	Classroom B-48	31.9	31.9	Greater than 95%	Greater than 95%

Notes:
1 Data from Table F1-44
2 Based on FICAN – USEPA Speech Intelligibility Curve, 1974.
Noise standard for a cumulative period of 5 minutes in a 60 minute period. Higher noise levels are permitted for shorter time periods. If ambient noise level exceeds standard, standard shall be increased to reflect ambient level.
* Includes relocation of existing tenants

Table F1-53. Predicted SCIG Train Horn SEL within Classrooms and Speech Intelligibility Assessment.

Receiver Number	Location	Description	Predicted SCIG Train Horn Exterior Noise Level, dBA	Measured Exterior to Interior Noise Reduction, dB	Predicted SCIG Train Horn Interior Noise Level, dBA[1]	Normal Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]	Raised Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener [2]
R3	Hudson School	Classroom 52	50.1	33	17.1	Greater than 95%	Greater than 95%
R5	Cabrillo High School	Classroom 1128	49.8	44.4	5.4	Greater than 95%	Greater than 95%
R6	Cabrillo Child Development Center	#2 Exterior, #4 Interior	52.5	28.6	23.9	Greater than 95%	Greater than 95%
R7	Bethune School	Classroom 102	52.7	26.1	26.6	Greater than 95%	Greater than 95%
R30	Stephens Middle School	Classroom PC2	45.6	38.3	7.3	Greater than 95%	Greater than 95%
R31	Webster School	Classroom B-48	40.1	38.6	1.5	Greater than 95%	Greater than 95%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors.
2 Based on FICAN – USEPA Speech Intelligibility Curve, 1974.

5.1.3 Predicted Noise Levels – City of Carson

The nearest residential receptor in the City of Carson (R33) is located over 7,000 ft from the SCIG site. Because of the distance to the nearest construction areas, barrier effects of intervening topography, and the high ambient background noise, construction noise is expected to be attenuated to ambient levels.

Receptor R33 is located approximately 200 feet east of the Alameda Corridor and directly east of Alameda Street. This location is exposed to significant noise levels from train movements, automobile traffic and heavy truck operations. Considering that the Reduced Project would generate six inbound and outbound trains per day, the increase in CNEL from the Project's trains on the Alameda Corridor and at the Salmon Avenue residence (R33) would be less than 1 dB.

Train horn sounding can produce maximum sound levels as high as 107 dBA at a distance of 100 ft and 90 dBA at a distance of 500 feet. The reduced project would generate six daily inbound and outbound trains with approximately 12 train horn soundings per day occurring near the intersection of the Alameda Corridor and Pacific Coast Highway. This is approximately 11,000 ft south of the Salmon Avenue residence. Train horn soundings from the Reduced Project are not expected to occur more than once in any one hour period. Train horn soundings are estimated to be approximately 63 dBA at this residence. When compared to the number of existing

train operations, horn soundings and ambient background noise, future locomotive horn noise from SCIG train traffic, although still discernible, would not be expected to result in a CNEL increase greater than 3 dB at the Salmon Avenue residence.

Reduced Project Construction and Operations Vibration

Because the Project site is located over 7,000 ft south of the Salmon Avenue residence (R33), daytime and nighttime construction vibration would not be expected to approach ambient noise levels. A site survey was conducted to determine if there were nonresidential vibration sensitive receptors (microelectronics firms, recording studios, research laboratories, etc. that employ vibration sensitive equipment) in the vicinity of the Project site and rail line. It was determined that no such receptors were present. In addition, the construction haul route would be expected to be primarily on Pacific Coast Highway outside of the City of Carson. Truck vibration would not be expected to exceed existing vibration generated by existing trucks on Pacific Coast Highway; thus, no increase in vibration would be expected.

Reduced Project train movements on the Alameda Corridor would pass by the Salmon Residence, within approximately 200 feet of the property boundary. Existing vibration levels range from 53 to 68.8 VdB at this location. Future train vibration would not be expected to exceed existing vibration levels from the Alameda Corridor and Alameda St. Future Project train vibration at the Salmon Residence would be less than the FTA criteria of 75 VdB.

Sleep Disturbance

Table F1-54 summarizes the predicted Reduced Project train horn SEL at the nearby residence and an assessment of sleep disturbance. Interior SELs with windows closed from the train horn noise experienced at 21843 Salmon Avenue would be as high as 43.0. When assessed with the FICAN curve, approximately 1% of exposed population at the residence would be expected to be awakened due to the highest levels of construction activity. Interior SELs with windows open at 21843 Salmon Avenue would be as high as 51.0. When assessed with the FICAN curve, approximately 2% of exposed population at the residence would be expected to be awakened due to the highest levels of construction activity. Single event awakenings would occur at a frequency below 10%.

Table F1-54. Summary of the Predicted SCIG Train Horn SEL at Nearby Carson Residences and Sleep Disturbance Assessment.

Receptor Number	Receptor Location	Predicted SCIG Train Horn Exterior SEL, dBA	Predicted SCIG Train Horn Interior SEL w/ Windows Closed, dBA[1]	Approximate Percentage of Exposed Population Expected to be Awakened [2]	Predicted SCIG Train Horn Interior SEL w/ Windows Open, dBA[3]	Approximate Percentage of Exposed Population Expected to be Awakened [2]
R33	Residence at 21843 Salmon Avenue	63.0	43.0	1%	51.0	2%

1 Assumes a 20 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Closed.
2 Based on FICAN 1997 Sleep Disturbance Curve.
3 Assumes a 12 dB Exterior to Interior Noise Reduction for Residential and Institutional Receptors with Windows Open.

School Classroom Speech Intelligibility

There are no schools located in the City of Carson within the immediate vicinity of the Project Site, thus SCIG train horns would not have any effect on speech intelligibility in classrooms.

There would be no construction and operations related noise effects on speech intelligibility in classrooms.

5.2 Alternative 1: No Project Alternative

The No Project Alternative considers what would reasonably be anticipated to occur if the proposed Project is not built and operated.

5.2.1 Predicted Noise Levels – City of Los Angeles

This alternative would not include any construction activities that could potentially cause an increase in noise levels at nearby sensitive receiver locations.

No construction activities would occur under the No Project Alternative. Accordingly, there would be no construction noise between the hours of 9:00 PM and 7:00 AM Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at any time on Sunday.

On-Site Operations

Operations at the existing site would continue from the current tenants. The existing noise environment, which is primarily from vehicular traffic on the roadway network, would be expected to change when compared to the existing noise levels previously presented in Table F1-18. Table F1-55 shows the predicted roadway traffic noise levels for the No Project Alternative. Portions of the following roadways in the City of Los Angeles include noise-sensitive land uses that would be expected to experience traffic noise levels above 70 CNEL: Alameda Street, E. Anaheim St., E. Harry Bridges Boulevard, E. Sepulveda Boulevard, John S. Gibson Boulevard, Pacific Coast Highway, S Alameda St., W. Harry Bridges Boulevard, and W. Sepulveda Boulevard. Traffic noise levels above 70 CNEL would continue to be considered incompatible with noise guidelines.

Table F1.56 shows the predicted noise level increase over existing levels; the No Project Alternative's traffic noise contribution. Roadways in Los Angeles with noise-sensitive land uses would not experience a Project increase in traffic noise level exceeding 1 dB.

Table F1-55. Calculated Existing Plus No Project Roadway Traffic Noise Levels

ROADWAY SEGMENT	*Leq @ Rec.*	*CNEL @ Rec.*	*DISTANCE TO CNEL CONTOURS (FT)*		
			70dBA1	*65dBA*	*60dBA*
1ST ST					
e/o East RD	73.4	74.4	254	533	1058
ACCESS RD					
e/o Ferry St	64.9	65.9	42	117	261
ALAMEDA ST					
n/o Anaheim St	71.5	72.5	168	375	766
w/o Eubank Ave	74.2	75.2	297	610	1198
s/o PCH	73.3	74.3	244	517	1028
s/o Anaheim St	74.8	75.8	339	681	1327
E 223RD AVE					
w/o I-405 Off ramps	71.8	72.8	181	401	815
E ANAHEIM ST					
between Avalon Blvd and Broad Ave	64.4	65.4	38	108	243
between Eubank Ave and Sanford St	64.5	65.5	39	109	245
between Sanford Ave and Sanford St	64.6	65.6	40	111	249
between Anaheim and Henry Ford	71.9	72.9	183	404	820
e/o Henry Ford Ave	73.3	74.3	244	516	1027
w/o E I St	71.6	72.6	173	386	786
e/o Sanford Ave	67.6	68.6	75	190	409
w/o Anaheim Way	73.3	74.3	244	516	1027
between Henry Ford Ave and Terminal Isla	73.3	74.3	244	516	1027
E HARRY BRIDGES BLVD					
e/o Avalon Blvd	72.5	73.5	207	449	904
E I ST					
between Terminal Island Fwy and Anaheim	69.5	70.5	111	265	556
E OPP ST					
w/o Farragut Ave	45.4	46.4	1	4	11
E SEPULVEDA BLVD					
e/o Alameda St	68.8	69.8	97	236	499
w/o Dolores St	67.7	68.7	76	192	412
w/o Wilmington Ave	69.4	70.4	108	258	542
e/o Wilmington Ave	68.0	69.0	81	203	435
e/o Dolores St	67.3	68.3	69	178	385
w/o Avalon Blvd	67.2	68.2	68	176	381
EAST RD					
n/o 1st St	67.5	68.5	73	186	400
s/o 1st St	66.6	67.6	60	158	345
FARRAGUT AVE					

Between Terminal Island Fwy SB ramps and	69.2	70.2	104	250	526
s/o E OPP St	43.9	44.9	1	3	9
FERRY ST					
between Seaside Ave and Access Rd	69.2	70.2	105	252	530
between Terminal Way and Pitchard St	72.1	73.1	191	420	849
FIGUEROA ST					
n/o Anaheim St	65.2	66.2	45	123	274
n/o PCH	65.8	66.8	52	138	305
HARBOR FWY					
n/o PCH off Ramp	83.6	84.6	2122	3215	5550
s/o Sepulveda Blvd	83.5	84.5	2067	3145	5437
n/o Sepulveda Blvd	83.6	84.6	2119	3212	5544
n/o 223rd St	83.7	84.7	2156	3259	5620
n/o 220th St	83.8	84.8	2206	3323	5721
n/o Carson St	83.9	84.9	2273	3408	5856
n/o Redondo Beach Blvd	83.4	84.4	2042	3113	5386
between 135 th St and Rosecrans Ave	83.3	84.3	2004	3064	5308
n/o 135th St	83.3	84.3	1976	3028	5250
n/o Alondra	83.3	84.3	2003	3062	5306
between Del Amo Blvd and Torrance Blv	83.8	84.8	2237	3362	5782
between 168th and Alondra	83.6	84.6	2106	3195	5518
n/o Del Amo Blvd	84.0	85.0	2332	3483	5974
n/o I-405	83.1	84.1	1920	2955	5133
s/o I-405	83.1	84.1	1917	2950	5126
s/o 182nd St	83.2	84.2	1969	3018	5235
between Artesia Blvd and 168th	82.9	83.9	1846	2858	4977
s/o SR-91	82.9	83.9	1843	2854	4972
s/o PCH off Ramp	83.4	84.4	2030	3097	5361
n/o El Segundo Blvd	83.3	84.3	2005	3065	5309
s/o El Segundo Blvd	83.2	84.2	1968	3017	5233
n/o Anaheim St	83.3	84.3	2016	3079	5332
s/o 120th St	83.2	84.2	1968	3017	5233
n/o 120th St	82.6	83.6	1718	2689	4707
n/o I-105	83.0	84.0	1872	2891	5032
n/o 108th St	83.6	84.6	2108	3197	5521
s/o 223rd St	83.8	84.8	2207	3325	5723
s/o 190th St	83.3	84.3	1978	3029	5253
HARBOR PLZ					
between Pier F Ave and Pico Ave	71.9	72.9	183	405	821
HARBOR SCENIC DR					
w/o Goldenshore St	74.6	75.6	325	657	1283
s/o Shoreline Dr	76.5	77.5	482	917	1746

n/o Shoreline Dr	77.5	78.5	589	1087	2042
HARBOR SCENIC WAY					
e/o Queens Hwy	73.2	74.2	240	509	1015
e/o Port Access Rd	73.3	74.3	244	516	1027
w/o Port Access Rd	73.3	74.3	244	516	1027
JOHN S GIBSON BLVD					
n/o I-110 Ramps	70.8	71.8	145	332	684
LONG BEACH FWY					
n/o Imperial Hwy	86.0	87.0	3524	4939	8243
s/o Imperial Hwy	86.2	87.2	3686	5131	8538
n/o I-105	85.9	86.9	3460	4863	8127
s/o I-105	85.9	86.9	3421	4816	8055
n/o Rosecrans Ave	85.9	86.9	3443	4843	8096
s/o Rosecrans Ave	87.3	88.3	4579	6164	10112
n/o Alondra	87.3	88.3	4573	6158	10102
between Alondra and Rosecrans	87.3	88.3	4587	6174	10127
s/o Alondra	87.3	88.3	4586	6172	10124
n/o SR-91	86.8	87.8	4159	5682	9381
n/o Artesia Blvd	86.2	87.2	3626	5059	8429
s/o Artesia Blvd	87.2	88.2	4510	6086	9994
n/o Long Beach Blvd	87.4	88.4	4690	6290	10303
s/o Long Beach Blvd	87.3	88.3	4633	6225	10205
n/o Del Amo Blvd	87.4	88.4	4691	6292	10305
s/o Del Amo Blvd Off ramp	87.3	88.3	4652	6248	10238
s/o Del Amo Blvd	87.4	88.4	4746	6354	10399
n/o Wardlow Rd	86.4	87.4	3796	5260	8736
s/o Wardlow Rd	86.7	87.7	4097	5610	9272
n/o Willow St	86.1	87.1	3619	5051	8416
s/o Willow St	86.6	87.6	4002	5500	9104
between off/of namps at Willow St	86.7	87.7	4034	5538	9161
s/o Anaheim St	85.7	86.7	3293	4664	7819
s/o PCH	85.7	86.7	3293	4664	7819
n/o Anahiem St	85.9	86.9	3429	4826	8070
s/o Firestone Blvd	86.2	87.2	3649	5087	8471
s/o 9th St	84.9	85.9	2764	4021	6821
n/o Long Beach Blvd	87.2	88.2	4491	6064	9960
n/o 9th St	84.7	85.7	2685	3923	6667
n/o 10th St	85.3	86.3	3029	4345	7326
s/o On ramp at Del Amo Blvd	87.4	88.4	4709	6312	10336
s/o Willow St	86.6	87.6	4000	5498	9101
n/o Anaheim St	86.0	87.0	3477	4883	8158
N HENRY FORD AVE					

n/o Terminal Island fwy	70.6	71.6	141	324	670
n/o Anaheim St	68.7	69.7	94	231	489
N SEASIDE AVE					
e/o Navy Way	81.0	82.0	1237	2036	3642
e/o Access Rd ramp	77.4	78.4	578	1070	2012
w/o Navy Way	80.7	81.7	1169	1941	3485
e/o Ferry St	73.9	74.9	278	575	1135
e/o Navy Way ramp	81.7	82.7	1442	2318	4105
e/o Navy Way	81.0	82.0	1237	2036	3642
NAVY WAY					
s/o Reeves Ave	76.8	77.8	508	959	1819
s/o Terminal Way	77.8	78.8	636	1161	2169
NEW DOCK ST					
w/o Henry Ford Ave	73.1	74.1	238	505	1006
e/o Henry Ford Ave	75.8	76.8	416	810	1558
w/o SB off ramp Terminal Island Fwy	75.8	76.8	416	810	1558
w/o NB on ramp Terminal Island Fwy	74.7	75.7	333	671	1308
between Terminal Island Fwy SB and NB Ra	74.7	75.7	333	671	1308
PACIFIC COAST HIGHWAY					
between Avalon Blvd and Eubank Ave	70.9	71.9	149	340	700
between Watson Ave and Eubank Ave	70.9	71.9	148	338	696
w/o Alameda St	71.8	72.8	179	397	806
w/o East Rd	71.1	72.1	156	353	724
w/o East Rd	70.7	71.7	143	329	678
between Watson Ave and Blinn Ave	70.7	71.7	143	328	676
PICO AVE					
s/o Ocean Blvd	70.7	71.7	144	330	680
n/o Ocean Blvd	72.7	73.7	215	463	930
n/o Pier C St	74.7	75.7	332	670	1306
s/o Pier C St	73.8	74.8	272	566	1118
n/o Pier DSt	73.8	74.8	272	566	1118
PIER A WAY					
e/o Henry Ford Ave	67.4	68.4	71	182	393
e/o Henry Ford Ave	68.3	69.3	87	215	458
e/o Henry Ford Ave	69.4	70.4	108	260	545
between Terminal Island Fwy and Henry Fo	60.4	61.4	17	53	126
n/o Terminal Island Fwy	65.1	66.1	44	121	270
e/o Henry Ford Ave	64.4	65.4	38	107	241
e/o Henry Ford Ave	65.5	66.5	48	131	290
PIER B ST					
s/o 9th St	69.7	70.7	115	273	571

w/o Edison Ave	69.2	70.2	104	251	528
n/o Pier A way	67.6	68.6	74	188	404
PIER C ST					
w/o Pier B St	68.4	69.4	89	219	466
w/o Pier B St	68.4	69.4	88	217	462
PIER D AVE					
s/o Pier D St	61.7	62.7	22	66	155
PIER D ST					
w/o I-710	69.2	70.2	105	253	532
PIER F AVE					
s/o Harbor Plaza	71.1	72.1	155	351	719
PIER G AVE					
s/o Harbor Plaza	72.8	73.8	220	473	948
s/o Harbor Plaza	72.8	73.8	220	473	948
PIER J WAY					
e/o Panorama Dr	70.7	71.7	142	326	674
PORT ACCESS RD					
e/o Ocean Blvd Ramps	75.3	76.3	371	736	1424
n/o New Dock St	71.1	72.1	154	349	717
n/o New Dock St	70.9	71.9	148	337	693
s/o Pier J way	72.3	73.3	199	434	876
s/o Pier J way	70.7	71.7	142	326	674
n/o Pier J way	72.3	73.3	199	434	876
s/o Harbor Scenic way	72.2	73.2	196	428	865
QUEENSWAY DR					
s/o Harbor Scenic Dr	71.1	72.1	154	350	718
S ALAMEDA ST					
n/o Wardlow Rd	72.7	73.7	219	470	943
S FRIES AVE					
s/o Water St	71.5	72.5	167	375	765
between Harry Bridges Blvd and Water St	69.9	70.9	120	283	591
S HARBOR SCENIC DR					
s/o Shoreline Dr	71.8	72.8	179	396	805
w/o Goldenshore St	75.2	76.2	366	727	1408
e/o Goldenshore St	76.7	77.7	502	950	1803
w/o Panorama Dr	75.3	76.3	376	743	1438
S PICO AVE					
s/o Embarcadero	71.2	72.2	159	358	734
n/o Harbor Scenic Dr ramp	75.4	76.4	380	751	1451
s/o Harbor Scenic Dr ramp	75.1	76.1	362	720	1396
SAN DIEGO FWY					

e/o I-110	84.3	85.3	2478	3667	6264
e/o Wilmington Blvd	84.2	85.2	2396	3564	6102
w/o Santa Fe Ave	84.8	85.8	2731	3980	6756
e/o 218th St	85.0	86.0	2846	4122	6977
w/o Alameda St	84.4	85.4	2488	3679	6283
e/o Wilmington Ave	84.1	85.1	2340	3493	5989
w/o Wilmington Ave	84.2	85.2	2406	3575	6120
s/o Carson St	84.2	85.2	2389	3555	6087
n/o Carson St	84.1	85.1	2354	3511	6018
n/o 213th St	84.1	85.1	2337	3490	5984
e/o Avalon Blvd	83.8	84.8	2237	3362	5783
w/o Avalon Blvd	84.0	85.0	2314	3460	5938
SAN GABRIEL AV					
n/o PCH	68.6	69.6	91	224	477
TERMINAL ISLAND FWY					
s/o PCH	74.7	75.7	332	669	1305
n/o PCH	71.2	72.2	160	361	739
between Off and loop On ramp at PCH	74.7	75.7	332	669	1306
s/o PCH off ramp	78.6	79.6	739	1317	2438
between Henry Ford Ave and Anaheim St	77.8	78.8	626	1145	2141
n/o Ocean Blvd	75.6	76.6	399	783	1508
s/o Henry Ford Ave	77.0	78.0	537	1006	1901
e/o Seaside Ave	75.9	76.9	420	816	1568
s/o Willow St	66.7	67.7	62	162	354
TERMINAL WAY					
w/o Ferry St	74.0	75.0	288	593	1167
w/o Eaire St	73.5	74.5	254	534	1059
s/o Navy Way	74.2	75.2	295	605	1189
s/o Navy Way	72.0	73.0	186	411	832
s/o Navy Way	74.2	75.2	295	605	1189
s/o Navy Way	70.1	71.1	126	295	614
s/o Navy Way	70.3	71.3	130	303	630
s/o Navy Way	72.5	73.5	206	448	901
W 9TH ST					
e/o Caspian Ave	64.6	65.6	40	112	251
s/o Anaheim St	66.6	67.6	60	158	345
e/o Santa Fe Ave	65.7	66.7	50	135	298
w/o Caspian Ave	64.6	65.6	40	112	251
n/o Pier B St	61.1	62.1	19	60	141
w/o Santa Fe Ave	68.3	69.3	87	215	459
s/o Pier B St	71.3	72.3	163	367	750
n/o Pier B St	69.7	70.7	115	273	571

W ANAHEIM ST					
e/o Harbor Ave	68.2	69.2	85	212	453
e/o Santa Fe Ave	72.6	73.6	212	458	920
w/o Harbor Ave	70.6	71.6	140	322	665
w/o Seabright Ave	71.4	72.4	165	371	757
w/o E I St	69.3	70.3	107	256	539
w/o Figueroa PL	67.6	68.6	74	189	407
between Wilmington and Neptune Ave	64.8	65.8	41	114	256
between Frigate Ave and Wilmington Blvd	64.6	65.6	40	111	250
e/o Neptune	64.7	65.7	40	112	252
between Neptune Ave and Fries Ave	64.5	65.5	39	110	247
w/o Frigate Ave	64.9	65.9	43	118	263
e/o Figueroa PL	68.3	69.3	86	214	455
between Seabright Ave and Santa Fe Ave	71.1	72.1	156	352	723
between Fries Ave and Avalon Blvd	65.2	66.2	45	124	275
between I-710 SB and NB Ramps	68.4	69.4	88	219	465
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71.4	72.4	166	373	761
between Hawaiian Ave and Wilmington Blvd	71.5	72.5	170	380	775
between Neptune Ave and Fries Ave	70.0	71.0	123	289	602
between Figueroa St and Mar Vista Ave	71.4	72.4	167	374	763
between Fries Ave and Avalon Blvd	72.3	73.3	201	437	882
between Mar Vista Ave and Hawaiian Ave	71.5	72.5	170	379	773
W I ST					
n/o Anaheim St	62.2	63.2	24	73	169
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	67.7	68.7	77	194	416
w/o I-110 SB off ramp	68.0	69.0	82	205	438
between I-710 NB and SB ramps	73.5	74.5	259	542	1074
e/o San Gabriel Ave	74.4	75.4	308	627	1230
between San Gabriel Ave and Santa Fe Ave	74.3	75.3	305	623	1222
e/o Wilmington Blvd	68.5	69.5	90	223	473
e/o Figueroa St	68.4	69.4	88	218	464
between Neptune Ave and Avalon Blvd	68.5	69.5	90	222	471
between Terminal Island Fwy SB and NB ra	72.7	73.7	217	467	938
e/o Santa Fe Ave	74.2	75.2	299	613	1203
e/o Harbor Ave	73.4	74.4	250	527	1048
w/o Termial Island Fwy	71.4	72.4	166	372	759
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	70.7	71.7	144	330	680
between Harbor Scenic Dr and Pier J Way	70.9	71.9	150	342	704
W SEPULVEDA BLVD					

e/o SB I-110 off Ramp	69.9	70.9	121	285	594
w/o NB I-110 off ramp	70.0	71.0	123	290	603
w/o Figueroa St	69.0	70.0	101	244	516
e/o Figueroa St	66.2	67.2	56	148	325
between SB and NB I-110 Ramps	70.0	71.0	123	289	602
W WATER ST					
between Fries Ave and Avalon Blvd	67.2	68.2	68	175	379
W WILLOW ST					
between NB and SB Terminal Island Fwy	68.3	69.3	87	216	459
between Terminal Island Fwy and Santa Fe	68.0	69.0	81	204	436
between Santa Fe Ave and Easy Ave	67.8	68.8	78	196	421
e/o Easy Ave	68.7	69.7	94	231	490
w/o SB I-710 ramps	67.7	68.7	76	192	412
w/o NB I-710 on ramp	67.9	68.9	79	198	425
SAN DIEGO FWY					
SB e/o Wilmington Ave	74.0	75.0	283	584	1152
SB w/o Wilmington Ave	74.3	75.3	306	625	1226
SB s/o Carson St	74.2	75.2	300	614	1207
NB n/o Carson St	75.3	76.3	376	744	1439
NB n/o 213th St	74.8	75.8	340	682	1329
NB e/o Avalon Blvd	75.4	76.4	380	750	1450
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB w/o Avalon Blvd	76.0	77.0	434	840	1609
SB e/o Avalon Blvd	74.8	75.8	338	679	1323
NB w/o Wilmington Ave	74.7	75.7	328	662	1292
NB e/o 218th St	75.3	76.3	372	736	1425
SB e/o Avalon Blvd	74.6	75.6	324	656	1282
NB s/o Carson St	74.7	75.7	328	662	1292
SB n/o Carson St	74.6	75.6	324	656	1282
SAN GABRIEL AV					
n/o PCH	65.0	66.0	43	119	266
TERMINAL ISLAND FWY					
s/o PCH	72.8	73.8	222	476	954
n/o PCH	71.8	72.8	181	400	812
n/o Ocean Blvd	73.6	74.6	259	543	1077
NB s/o PCH	73.2	74.2	242	512	1019
SB n/o PCH	72.1	73.1	190	418	845
NB between Off and loop On ramp at PCH	73.2	74.2	242	512	1019
NB s/o PCH off ramp	76.0	77.0	428	830	1593
SB n/o Anaheim St	71.2	72.2	158	357	732
NB between Henry Ford Ave and Anaheim St	74.6	75.6	325	658	1285
NB n/o Ocean Blvd	72.6	73.6	213	460	924

SB n/o Ocean Blvd	71.0	72.0	152	346	710
s/o Henry Ford Ave	74.1	75.1	290	596	1174
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
e/o Seaside Ave	72.5	73.5	208	451	908
SB s/o Anaheim Way	74.0	75.0	287	592	1166
NB s/o Willow St	68.9	69.9	97	237	501
SB s/o PCH on ramp	74.0	75.0	287	591	1165
SB s/o PCH	72.9	73.9	225	481	962
NB n/o PCH	72.2	73.2	196	428	864
SB between loop Off and On ramp at PCH	72.8	73.8	224	479	960
SB s/o Henry Ford Ave	73.1	74.1	236	502	1002
s/o Henry Ford Ave	74.2	75.2	296	607	1194
TERMINAL WAY					
w/o Ferry St	72.4	73.4	203	442	890
w/o Eaire St	72.3	73.3	199	434	875
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	69.8	70.8	118	278	581
s/o Navy Way	72.2	73.2	197	430	868
s/o Navy Way	68.9	69.9	98	238	504
s/o Navy Way	69.0	70.0	99	241	510
s/o Navy Way	70.5	71.5	137	316	653
W 9TH ST					
e/o Caspian Ave	63.1	64.1	29	85	195
s/o Anaheim St	66.5	67.5	60	157	342
e/o Santa Fe Ave	64.7	65.7	41	114	256
w/o Caspian Ave	63.1	64.1	29	86	196
n/o Pier B St	61.6	62.6	21	65	153
w/o Santa Fe Ave	67.5	68.5	73	187	403
s/o Pier B St	71.4	72.4	164	369	754
n/o Pier B St	66.8	67.8	63	164	356
W ANAHEIM ST					
e/o Harbor Ave	66.8	67.8	63	164	356
e/o Santa Fe Ave	71.4	72.4	165	371	757
w/o Harbor Ave	69.3	70.3	107	257	540
w/o Seabright Ave	70.2	71.2	129	301	625
w/o E I St	68.2	69.2	85	211	450
w/o Figueroa PL	68.4	69.4	88	218	464
between Wilmington and Neptune Ave	63.4	64.4	31	90	206
between Frigate Ave and Wilmington Blvd	63.6	64.6	32	93	212
e/o Neptune	63.2	64.2	30	87	199
between Neptune Ave and Fries Ave	63.3	64.3	30	88	201
w/o Frigate Ave	63.5	64.5	32	91	208
e/o Figueroa PL	68.4	69.4	89	219	467

between Seabright Ave and Santa Fe Ave	70.1	71.1	125	292	608
between Fries Ave and Avalon Blvd	63.8	64.8	34	97	219
between I-710 SB and NB Ramps	66.9	67.9	64	167	362
W HARRY BRIDGES BLVD					
between Wilmington Blvd and Neptune Ave	71.0	72.0	151	344	707
between Hawaiian Ave and Wilmington Blvd	70.8	71.8	146	334	688
between Neptune Ave and Fries Ave	70.0	71.0	124	291	606
between Figueroa St and Mar Vista Ave	70.7	71.7	143	328	677
between Fries Ave and Avalon Blvd	71.5	72.5	167	375	765
between Mar Vista Ave and Hawaiian Ave	70.8	71.8	146	334	688
W I ST					
n/o Anaheim St	63.1	64.1	29	85	196
W PACIFIC COAST HIGHWAY					
between I-110 SB off ramp and Figueroa S	67.1	68.1	67	172	373
w/o I-110 SB off ramp	67.4	68.4	71	181	392
between I-710 NB and SB ramps	71.8	72.8	180	399	811
e/o San Gabriel Ave	73.4	74.4	250	527	1047
between San Gabriel Ave and Santa Fe Ave	73.2	74.2	242	512	1020
e/o Wilmington Blvd	67.8	68.8	78	196	420
e/o Figueroa St	67.6	68.6	74	189	407
between Neptune Ave and Avalon Blvd	68.3	69.3	86	214	456
between Terminal Island Fwy SB and NB ra	71.5	72.5	170	379	774
e/o Santa Fe Ave	73.6	74.6	261	547	1083
e/o Harbor Ave	71.7	72.7	175	389	791
w/o Terminal Island Fwy	70.2	71.2	129	301	625
W PANORAMA DR					
between Queens Hwy and Harbor Scenic Dr	70.4	71.4	135	312	647
between Harbor Scenic Dr and Pier J Way	71.3	72.3	161	363	743
W SEPULVEDA BLVD					
e/o SB I-110 off Ramp	67.7	68.7	76	192	413
w/o NB I-110 off ramp	68.4	69.4	88	217	462
w/o Figueroa St	68.0	69.0	80	202	432
e/o Figueroa St	65.7	66.7	50	136	300
between SB and NB I-110 Ramps	67.8	68.8	77	195	419
W WATER ST					
between Fries Ave and Avalon Blvd	64.4	65.4	38	108	242
W WILLOW ST					
between NB and SB Terminal Island Fwy	69.9	70.9	121	285	595
between Terminal Island Fwy and Santa Fe	66.7	67.7	61	160	350
between Santa Fe Ave and Easy Ave	66.7	67.7	62	163	354
e/o Easy Ave	68.7	69.7	93	228	484
w/o SB I-710 ramps	65.9	66.9	53	141	310
w/o NB I-710 on ramp	66.6	67.6	60	158	345

Table F1-56. No Project Roadway Traffic Noise Level Increase

ROADWAY SEGMENT	*Existing CNEL @ 100 ft.*	*No Project Alternative CNEL @ 100 ft*	*Project Incrament in Traffic Noise Level, dB*
1ST ST			
e/o East RD	74.6	74.4	-0.2
ACCESS RD			
e/o Ferry St	67.8	65.9	-1.9
ALAMEDA ST			0.0
n/o Anaheim St	71.9	72.5	0.6
w/o Eubank Ave	73.6	75.2	1.6
s/o PCH	73.8	74.3	0.5
s/o Anaheim St	74.5	75.8	1.3
E 223RD AVE			
w/o I-405 Off ramps	72.1	72.8	0.7
E ANAHEIM ST			
between Avalon Blvd and Broad Ave	65.5	65.4	-0.1
between Eubank Ave and Sanford St	65.8	65.5	-0.3
between Sanford Ave and Sanford St	65.9	65.6	-0.3
between Anaheim and Henry Ford	71.7	72.9	1.2
e/o Henry Ford Ave	73	74.3	1.3
w/o E I St	72.2	72.6	0.4
e/o Sanford Ave	68.9	68.6	-0.3
w/o Anaheim Way	73	74.3	1.3
between Henry Ford Ave and Terminal Isla	73	74.3	1.3
E HARRY BRIDGES BLVD			
e/o Avalon Blvd	72.1	73.5	1.4
E I ST			
between Terminal Island Fwy and Anaheim	71.5	70.5	-1.0
E OPP ST			
w/o Farragut Ave	44.4	46.4	2.0
E SEPULVEDA BLVD			
e/o Alameda St	70.7	69.8	-0.9
w/o Dolores St	69.3	68.7	-0.6
w/o Wilmington Ave	70.1	70.4	0.3
e/o Wilmington Ave	69	69.0	0.0
e/o Dolores St	68.9	68.3	-0.6
w/o Avalon Blvd	68.9	68.2	-0.7
EAST RD			
n/o 1st St	65.9	68.5	2.6
s/o 1st St	65.1	67.6	2.5
FARRAGUT AVE			

Between Terminal Island Fwy SB ramps and	70	70.2	0.2
s/o E OPP St	44.4	44.9	0.5
FERRY ST			
between Seaside Ave and Access Rd	68.1	70.2	2.1
between Terminal Way and Pitchard St	70.7	73.1	2.4
FIGUEROA ST			
n/o Anaheim St	65.3	66.2	0.9
n/o PCH	65.8	66.8	1.0
HARBOR FWY			
n/o PCH off Ramp	83	84.6	1.6
s/o Sepulveda Blvd	82.9	84.5	1.6
n/o Sepulveda Blvd	83.1	84.6	1.5
n/o 223rd St	83.3	84.7	1.4
n/o 220th St	83.4	84.8	1.4
n/o Carson St	83.7	84.9	1.2
n/o Redondo Beach Blvd	83.7	84.4	0.7
between 135 th St and Rosecrans Ave	83.7	84.3	0.6
n/o 135th St	83.4	84.3	0.9
n/o Alondra	83.6	84.3	0.7
between Del Amo Blvd and Torrance Blv	83.6	84.8	1.2
between 168th and Alondra	83.8	84.6	0.8
n/o Del Amo Blvd	83.9	85.0	1.1
n/o I-405	83	84.1	1.1
s/o I-405	83	84.1	1.1
s/o 182nd St	83.3	84.2	0.9
between Artesia Blvd and 168th	83.1	83.9	0.8
s/o SR-91	83.2	83.9	0.7
s/o PCH off Ramp	82.6	84.4	1.8
n/o El Segundo Blvd	83.5	84.3	0.8
s/o El Segundo Blvd	83.4	84.2	0.8
n/o Anaheim St	82.8	84.3	1.5
s/o 120th St	83.4	84.2	0.8
n/o 120th St	82.9	83.6	0.7
n/o I-105	83.4	84.0	0.6
n/o 108th St	84	84.6	0.6
s/o 223rd St	83.4	84.8	1.4
s/o 190th St	83.3	84.3	1.0
HARBOR PLZ			
between Pier F Ave and Pico Ave	70	72.9	2.9
HARBOR SCENIC DR			
w/o Goldenshore St	72.5	75.6	3.1
s/o Shoreline Dr	73.3	77.5	4.2

n/o Shoreline Dr	74.1	78.5	4.4
HARBOR SCENIC WAY			
e/o Queens Hwy	69.5	74.2	4.7
e/o Port Access Rd	70	74.3	4.3
w/o Port Access Rd	70	74.3	4.3
JOHN S GIBSON BLVD			
n/o I-110 Ramps	70.7	71.8	1.1
LONG BEACH FWY			
n/o Imperial Hwy	85.8	87.0	1.2
s/o Imperial Hwy	86.1	87.2	1.1
n/o I-105	85.7	86.9	1.2
s/o I-105	85.7	86.9	1.2
n/o Rosecrans Ave	85.7	86.9	1.2
s/o Rosecrans Ave	86.9	88.3	1.4
n/o Alondra	86.9	88.3	1.4
between Alondra and Rosecrans	86.9	88.3	1.4
s/o Alondra	86.8	88.3	1.5
n/o SR-91	86.3	87.8	1.5
n/o Artesia Blvd	85.5	87.2	1.7
s/o Artesia Blvd	86.3	88.2	1.9
n/o Long Beach Blvd	86.5	88.4	1.9
s/o Long Beach Blvd	86.3	88.3	2.0
n/o Del Amo Blvd	86.4	88.4	2.0
s/o Del Amo Blvd Off ramp	86.4	88.3	1.9
s/o Del Amo Blvd	86.5	88.4	1.9
n/o Wardlow Rd	85	87.4	2.4
s/o Wardlow Rd	85.6	87.7	2.1
n/o Willow St	84.6	87.1	2.5
s/o Willow St	85.4	87.6	2.2
between off/of namps at Willow St	85.4	87.7	2.3
s/o Anaheim St	84.5	86.7	2.2
s/o PCH	84.5	86.7	2.2
n/o Anahiem St	84.7	86.9	2.2
s/o Firestone Blvd	86	87.2	1.2
s/o 9th St	81.8	85.9	4.1
n/o Long Beach Blvd	86.3	88.2	1.9
n/o 9th St	82.8	85.7	2.9
n/o 10th St	83.3	86.3	3.0
s/o On ramp at Del Amo Blvd	86.4	88.4	2.0
s/o Willow St	85.3	87.6	2.3
n/o Anaheim St	84.7	87.0	2.3
N HENRY FORD AVE			

n/o Terminal Island fwy	71.5	71.6	0.1
n/o Anaheim St	69.7	69.7	0.0
N SEASIDE AVE			
e/o Navy Way	79.6	82.0	2.4
e/o Access Rd ramp	75.6	78.4	2.8
w/o Navy Way	78.9	81.7	2.8
e/o Ferry St	72.8	74.9	2.1
e/o Navy Way ramp	80.6	82.7	2.1
e/o Navy Way	79.6	82.0	2.4
NAVY WAY			0.0
s/o Reeves Ave	71.4	77.8	6.4
s/o Terminal Way	73.4	78.8	5.4
NEW DOCK ST			
w/o Henry Ford Ave	69.4	74.1	4.7
e/o Henry Ford Ave	71.7	76.8	5.1
w/o SB off ramp Terminal Island Fwy	71.7	76.8	5.1
w/o NB on ramp Terminal Island Fwy	69	75.7	6.7
between Terminal Island Fwy SB and NB Ra	69	75.7	6.7
PACIFIC COAST HIGHWAY			
between Avalon Blvd and Eubank Ave	72	71.9	-0.1
between Watson Ave and Eubank Ave	72	71.9	-0.1
w/o Alameda St	72.5	72.8	0.3
w/o East Rd	72.2	72.1	-0.1
w/o East Rd	71.6	71.7	0.1
between Watson Ave and Blinn Ave	72	71.7	-0.3
PICO AVE			
s/o Ocean Blvd	66.5	71.7	5.2
n/o Ocean Blvd	68.9	73.7	4.8
n/o Pier C St	72.3	75.7	3.4
s/o Pier C St	71.4	74.8	3.4
n/o Pier DSt	71.4	74.8	3.4
PIER A WAY			
e/o Henry Ford Ave	65.5	68.4	2.9
e/o Henry Ford Ave	67.8	69.3	1.5
e/o Henry Ford Ave	69.5	70.4	0.9
between Terminal Island Fwy and Henry Fo	54.4	61.4	7.0
n/o Terminal Island Fwy	64.4	66.1	1.7
e/o Henry Ford Ave	64	65.4	1.4
e/o Henry Ford Ave	65.1	66.5	1.4
PIER B ST			
s/o 9th St	68.3	70.7	2.4
w/o Edison Ave	68.1	70.2	2.1

n/o Pier A way	65.5	68.6	3.1
PIER C ST			
w/o Pier B St	66.9	69.4	2.5
w/o Pier B St	66.3	69.4	3.1
PIER D AVE			
s/o Pier D St	60.4	62.7	2.3
PIER D ST			
w/o I-710	68.3	70.2	1.9
PIER F AVE			
s/o Harbor Plaza	69.1	72.1	3.0
PIER G AVE			
s/o Harbor Plaza	48.3	73.8	25.5
s/o Harbor Plaza	48.3	73.8	25.5
PIER J WAY			
e/o Panorama Dr	70	71.7	1.7
PORT ACCESS RD			
e/o Ocean Blvd Ramps	71.3	76.3	5.0
n/o New Dock St	67.4	72.1	4.7
n/o New Dock St	67	71.9	4.9
s/o Pier J way	69.2	73.3	4.1
s/o Pier J way	70	71.7	1.7
n/o Pier J way	69.2	73.3	4.1
s/o Harbor Scenic way	68.7	73.2	4.5
QUEENSWAY DR			
s/o Harbor Scenic Dr	68.6	72.1	3.5
S ALAMEDA ST			
n/o Wardlow Rd	69.6	73.7	4.1
S FRIES AVE			
s/o Water St	68.7	72.5	3.8
between Harry Bridges Blvd and Water St	67	70.9	3.9
S HARBOR SCENIC DR			
s/o Shoreline Dr	69.4	72.8	3.4
w/o Goldenshore St	73	76.2	3.2
e/o Goldenshore St	73.4	77.7	4.3
w/o Panorama Dr	73.4	76.3	2.9
S PICO AVE			
s/o Embarcadero	66.7	72.2	5.5
n/o Harbor Scenic Dr ramp	70.4	76.4	6.0
s/o Harbor Scenic Dr ramp	69.9	76.1	6.2
SAN DIEGO FWY			
e/o I-110	84.5	85.3	0.8

e/o Wilmington Blvd	84.4	85.2	0.8
w/o Santa Fe Ave	84.9	85.8	0.9
e/o 218th St	85.1	86.0	0.9
w/o Alameda St	84.6	85.4	0.8
e/o Wilmington Ave	84.4	85.1	0.7
w/o Wilmington Ave	84.5	85.2	0.7
s/o Carson St	84.4	85.2	0.8
n/o Carson St	84.3	85.1	0.8
n/o 213th St	84.4	85.1	0.7
e/o Avalon Blvd	84.3	84.8	0.5
w/o Avalon Blvd	84.5	85.0	0.5
SAN GABRIEL AV			
n/o PCH	65	69.6	4.6
TERMINAL ISLAND FWY			
s/o PCH	76.1	75.7	-0.4
n/o PCH	75.3	72.2	-3.1
between Off and loop On ramp at PCH	76.1	75.7	-0.4
s/o PCH off ramp	78	79.6	1.6
between Henry Ford Ave and Anaheim St	76.5	78.8	2.3
n/o Ocean Blvd	72.8	76.6	3.8
s/o Henry Ford Ave	74.2	78.0	3.8
e/o Seaside Ave	75	76.9	1.9
s/o Willow St	71.5	67.7	-3.8
TERMINAL WAY			
w/o Ferry St	72.4	75.0	2.6
w/o Eaire St	71.9	74.5	2.6
s/o Navy Way	71.7	75.2	3.5
s/o Navy Way	69.4	73.0	3.6
s/o Navy Way	71.7	75.2	3.5
s/o Navy Way	67.9	71.1	3.2
s/o Navy Way	68	71.3	3.3
s/o Navy Way	69.8	73.5	3.7
W 9TH ST			
e/o Caspian Ave	64	65.6	1.6
s/o Anaheim St	68.7	67.6	-1.1
e/o Santa Fe Ave	67.8	66.7	-1.1
w/o Caspian Ave	65.4	65.6	0.2
n/o Pier B St	60.7	62.1	1.4
w/o Santa Fe Ave	69	69.3	0.3
s/o Pier B St	70	72.3	2.3
n/o Pier B St	66.6	70.7	4.1
W ANAHEIM ST			

e/o Harbor Ave	69.6	69.2	-0.4
e/o Santa Fe Ave	73.1	73.6	0.5
w/o Harbor Ave	71.3	71.6	0.3
w/o Seabright Ave	71.9	72.4	0.5
w/o E I St	69.8	70.3	0.5
w/o Figueroa PL	69.2	68.6	-0.6
between Wilmington and Neptune Ave	65.5	65.8	0.3
between Frigate Ave and Wilmington Blvd	65.8	65.6	-0.2
e/o Neptune	65.3	65.7	0.4
between Neptune Ave and Fries Ave	65.2	65.5	0.3
w/o Frigate Ave	66.1	65.9	-0.2
e/o Figueroa PL	69.4	69.3	-0.1
between Seabright Ave and Santa Fe Ave	71.6	72.1	0.5
between Fries Ave and Avalon Blvd	66.1	66.2	0.1
between I-710 SB and NB Ramps	69.8	69.4	-0.4
W HARRY BRIDGES BLVD			
between Wilmington Blvd and Neptune Ave	71.5	72.4	0.9
between Hawaiian Ave and Wilmington Blvd	72	72.5	0.5
between Neptune Ave and Fries Ave	70.9	71.0	0.1
between Figueroa St and Mar Vista Ave	72	72.4	0.4
between Fries Ave and Avalon Blvd	72.2	73.3	1.1
between Mar Vista Ave and Hawaiian Ave	72	72.5	0.5
W I ST			
n/o Anaheim St	62.6	63.2	0.6
W PACIFIC COAST HIGHWAY			
between I-110 SB off ramp and Figueroa S	69.1	68.7	-0.4
w/o I-110 SB off ramp	69.3	69.0	-0.3
between I-710 NB and SB ramps	72.7	74.5	1.8
e/o San Gabriel Ave	73.9	75.4	1.5
between San Gabriel Ave and Santa Fe Ave	73.9	75.3	1.4
e/o Wilmington Blvd	69.3	69.5	0.2
e/o Figueroa St	69.1	69.4	0.3
between Neptune Ave and Avalon Blvd	69.3	69.5	0.2
between Terminal Island Fwy SB and NB ra	72.6	73.7	1.1
e/o Santa Fe Ave	73.7	75.2	1.5
e/o Harbor Ave	72.5	74.4	1.9
w/o Termial Island Fwy	72.5	72.4	-0.1
W PANORAMA DR			
between Queens Hwy and Harbor Scenic Dr	68.8	71.7	2.9
between Harbor Scenic Dr and Pier J Way	69.5	71.9	2.4
W SEPULVEDA BLVD			0.0
e/o SB I-110 off Ramp	71.1	70.9	-0.2

w/o NB I-110 off ramp	71.1	71.0	-0.1
w/o Figueroa St	70.2	70.0	-0.2
e/o Figueroa St	68	67.2	-0.8
between SB and NB I-110 Ramps	71.1	71.0	-0.1
W WATER ST			
between Fries Ave and Avalon Blvd	63.3	68.2	4.9
W WILLOW ST			
between NB and SB Terminal Island Fwy	71.7	69.3	-2.4
between Terminal Island Fwy and Santa Fe	69.1	69.0	-0.1
between Santa Fe Ave and Easy Ave	68.9	68.8	-0.1
e/o Easy Ave	70	69.7	-0.3
w/o SB I-710 ramps	69	68.7	-0.3
w/o NB I-710 on ramp	69.5	68.9	-0.6
SAN DIEGO FWY			
SB e/o Wilmington Ave	75	75.0	0.0
SB w/o Wilmington Ave	75.3	75.3	0.0
SB s/o Carson St	75.2	75.2	0.0
NB n/o Carson St	76.3	76.3	0.0
NB n/o 213th St	75.8	75.8	0.0
NB e/o Avalon Blvd	76.4	76.4	0.0
SB e/o Avalon Blvd	75.6	75.6	0.0
NB w/o Avalon Blvd	77	77.0	0.0
SB e/o Avalon Blvd	75.8	75.8	0.0
NB w/o Wilmington Ave	75.7	75.7	0.0
NB e/o 218th St	76.3	76.3	0.0
SB e/o Avalon Blvd	75.6	75.6	0.0
NB s/o Carson St	75.7	75.7	0.0
SB n/o Carson St	75.6	75.6	0.0
SAN GABRIEL AV			
n/o PCH	66	66.0	0.0
TERMINAL ISLAND FWY			0.0
s/o PCH	73.8	73.8	0.0
n/o PCH	72.8	72.8	0.0
n/o Ocean Blvd	74.6	74.6	0.0
NB s/o PCH	74.2	74.2	0.0
SB n/o PCH	73.1	73.1	0.0
NB between Off and loop On ramp at PCH	74.2	74.2	0.0
NB s/o PCH off ramp	77	77.0	0.0
SB n/o Anaheim St	72.2	72.2	0.0
NB between Henry Ford Ave and Anaheim St	75.6	75.6	0.0
NB n/o Ocean Blvd	73.6	73.6	0.0
SB n/o Ocean Blvd	72	72.0	0.0

s/o Henry Ford Ave	75.1	75.1	0.0
SB s/o Henry Ford Ave	74.1	74.1	0.0
e/o Seaside Ave	73.5	73.5	0.0
SB s/o Anaheim Way	75	75.0	0.0
NB s/o Willow St	69.9	69.9	0.0
SB s/o PCH on ramp	75	75.0	0.0
SB s/o PCH	73.9	73.9	0.0
NB n/o PCH	73.2	73.2	0.0
SB between loop Off and On ramp at PCH	73.8	73.8	0.0
SB s/o Henry Ford Ave	74.1	74.1	0.0
s/o Henry Ford Ave	75.2	75.2	0.0
TERMINAL WAY			
w/o Ferry St	73.4	73.4	0.0
w/o Eaire St	73.3	73.3	0.0
s/o Navy Way	73.2	73.2	0.0
s/o Navy Way	70.8	70.8	0.0
s/o Navy Way	73.2	73.2	0.0
s/o Navy Way	69.9	69.9	0.0
s/o Navy Way	70	70.0	0.0
s/o Navy Way	71.5	71.5	0.0
W 9TH ST			
e/o Caspian Ave	64.1	64.1	0.0
s/o Anaheim St	67.5	67.5	0.0
e/o Santa Fe Ave	65.7	65.7	0.0
w/o Caspian Ave	64.1	64.1	0.0
n/o Pier B St	62.6	62.6	0.0
w/o Santa Fe Ave	68.5	68.5	0.0
s/o Pier B St	72.4	72.4	0.0
n/o Pier B St	67.8	67.8	0.0
W ANAHEIM ST			
e/o Harbor Ave	67.8	67.8	0.0
e/o Santa Fe Ave	72.4	72.4	0.0
w/o Harbor Ave	70.3	70.3	0.0
w/o Seabright Ave	71.2	71.2	0.0
w/o E I St	69.2	69.2	0.0
w/o Figueroa PL	69.4	69.4	0.0
between Wilmington and Neptune Ave	64.4	64.4	0.0
between Frigate Ave and Wilmington Blvd	64.6	64.6	0.0
e/o Neptune	64.2	64.2	0.0
between Neptune Ave and Fries Ave	64.3	64.3	0.0
w/o Frigate Ave	64.5	64.5	0.0
e/o Figueroa PL	69.4	69.4	0.0
between Seabright Ave and Santa Fe Ave	71.1	71.1	0.0

between Fries Ave and Avalon Blvd	64.8	64.8	0.0
between I-710 SB and NB Ramps	67.9	67.9	0.0
W HARRY BRIDGES BLVD			
between Wilmington Blvd and Neptune Ave	72	72.0	0.0
between Hawaiian Ave and Wilmington Blvd	71.8	71.8	0.0
between Neptune Ave and Fries Ave	71	71.0	0.0
between Figueroa St and Mar Vista Ave	71.7	71.7	0.0
between Fries Ave and Avalon Blvd	72.5	72.5	0.0
between Mar Vista Ave and Hawaiian Ave	71.8	71.8	0.0
W I ST			
n/o Anaheim St	64.1	64.1	0.0
W PACIFIC COAST HIGHWAY			
between I-110 SB off ramp and Figueroa S	68.1	68.1	0.0
w/o I-110 SB off ramp	68.4	68.4	0.0
between I-710 NB and SB ramps	72.8	72.8	0.0
e/o San Gabriel Ave	74.4	74.4	0.0
between San Gabriel Ave and Santa Fe Ave	74.2	74.2	0.0
e/o Wilmington Blvd	68.8	68.8	0.0
e/o Figueroa St	68.6	68.6	0.0
between Neptune Ave and Avalon Blvd	69.3	69.3	0.0
between Terminal Island Fwy SB and NB ra	72.5	72.5	0.0
e/o Santa Fe Ave	74.6	74.6	0.0
e/o Harbor Ave	72.7	72.7	0.0
w/o Termial Island Fwy	71.2	71.2	0.0
W PANORAMA DR			
between Queens Hwy and Harbor Scenic Dr	71.4	71.4	0.0
between Harbor Scenic Dr and Pier J Way	72.3	72.3	0.0
W SEPULBEDA BLVD			
e/o SB I-110 off Ramp	68.7	68.7	0.0
w/o NB I-110 off ramp	69.4	69.4	0.0
w/o Figueroa St	69	69.0	0.0
e/o Figueroa St	66.7	66.7	0.0
between SB and NB I-110 Ramps	68.8	68.8	0.0
W WATER ST			
between Fries Ave and Avalon Blvd	65.4	65.4	0.0
W WILLOW ST			
between NB and SB Terminal Island Fwy	70.9	70.9	0.0
between Terminal Island Fwy and Santa Fe	67.7	67.7	0.0
between Santa Fe Ave and Easy Ave	67.7	67.7	0.0
e/o Easy Ave	69.7	69.7	0.0
w/o SB I-710 ramps	66.9	66.9	0.0
w/o NB I-710 on ramp	67.6	67.6	0.0

Rail Corridor Noise

There would be no increase in train movements on the Alameda Corridor under the No Project Alternative because the Project would not be constructed. Therefore, noise from rail activity on the Alameda Corridor under the No Project Alternative would be unchanged from baseline conditions.

No Project operational noise levels would not result in the CNEL being increased by 3 dBA CNEL or more above baseline nor increase to within the "normally unacceptable" or "clearly unacceptable" category, nor exceed 5 dBA over the current CNEL at sensitive locations.

Sleep Disturbance

There would be no construction and operations related noise that could cause sleep disturbance in residences. Operations related noise due to the 10% increase in activity on the site would increase by 0.4 dB.

School Classroom Speech Intelligibility

There would be no construction and operations related noise that could cause speech intelligibility in classrooms. Operations related noise due to the 10% increase in activity on the site would increase by 0.4 dB.

5.2.2 Predicted Noise Levels – City of Long Beach

On-Site Operations

Operations at the existing site would continue from the current tenants. The existing noise environment, which is primarily from vehicular traffic on the roadway network, would be expected to change when compared to the existing noise levels previously presented in Table F1-17. Table F1-55 previously summarized the predicted roadway traffic noise levels with the No Project Alternative. Portions of the following roadways in the City of Long Beach include noise-sensitive land uses that would be expected to experience future traffic noise levels above 70 CNEL: E. Anaheim St., E. Sepulveda Boulevard, Pacific Coast Highway, Long Beach Freeway and the Terminal Island Freeway. Traffic noise levels above 70 CNEL are considered incompatible with noise guidelines.

The No Project's predicted noise level increase over existing levels is summarized in Table F1-56. Roadways in Long Beach would not experience a No Project increase in traffic noise level exceeding 2 dB. The majority of roadways within the City would not experience any traffic noise increase or decrease as a result of the No Project alternative.

Traffic noise levels along portions of the Long Beach Freeway would range from 85.3 CNEL to 87.5 CNEL and would be above the compatibility threshold of 70 CNEL. However, the traffic noise increase as a result of the No Project alternative would not exceed 0.1 dB at any segments.

Rail Corridor Noise

There would be no increase in train movements under the No Project Alternative because the Project would not be constructed. Therefore, noise from rail activity under the No Project Alternative would be unchanged from baseline conditions.

No Project operational noise levels would result in the CNEL being increased by 3 dBA CNEL or more or exceed municipal code standards.

On-Site Operations

The No Project Alternative would not include any construction that could potentially cause an increase in vibration levels at nearby sensitive receiver locations.

Operations at the existing site would continue from the current tenants. The existing ground-borne vibration, which is primarily from vehicular traffic on the roadway network, would be unchanged.

Rail Corridor Vibration

There would be no increase in train movements under the No Project Alternative because the Project would not be constructed. Therefore, vibration from rail activity under the No Project Alternative would be unchanged from baseline conditions.

Because the No Project Alternative does not include any construction nor operations activities, there would be no vibration increases attributed to the No Project Alternative and no vibration impacts from construction or operations.

Sleep Disturbance

There would be no construction and operations related noise that could cause sleep disturbance in residences.

School Classroom Speech Intelligibility

There would be no construction and operations related noise that could disrupt speech intelligibility in classrooms.

5.2.3 Predicted Noise Levels – City of Carson

On-Site Operations

Operations at the existing site would continue from the current tenants. The existing noise, which is primarily from vehicular traffic on the roadway network, would be unchanged.

Rail Corridor Noise

There would be no increase in train movements under the No Project Alternative because the Project would not be constructed. Therefore, noise from rail activity under the No Project Alternative would be unchanged from baseline conditions.

No Project operational noise levels would result in the CNEL being increased by 3 dBA CNEL or more or exceed municipal code standards.

On-Site Operations

Operations at the existing site would continue from the current tenants. The existing groundborne vibration, which is primarily from vehicular traffic on the roadway network, would be unchanged.

Rail Corridor Vibration

There would be no increase in train movements under the No Project Alternative because the Project would not be constructed. Therefore, groundborne vibration from rail activity under the No Project Alternative would be unchanged from baseline conditions.

Sleep Disturbance

There would be no construction and operations related impacts for sleep disturbance in residences.

School Classroom Speech Intelligibility

There would be no construction and operations related noise that could disrupt speech intelligibility in classrooms.

6 References

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2. Alameda Corridor existing train counts, provided by Mr. John Doherty, ACTA, February 2011.
3. ASTM E336-90 Measurement of Airborne Sound Insulation in Buildings, ASTM International, 2009.
4. CadnaA Noise Prediction Software, DataKustik, 2009.
5. City of Los Angeles CEQA Thresholds Guide, City of Los Angeles, 2006
6. City of Los Angeles Municipal Code Chapter XI Noise Regulation, City of Los Angeles, 2011.
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8. FHWA Roadway Construction Noise Model, U.S. Department of Transportation, 2006.
9. FHWA Traffic Noise Model TNM 2.5, U.S. Department of Transportation, 2004.
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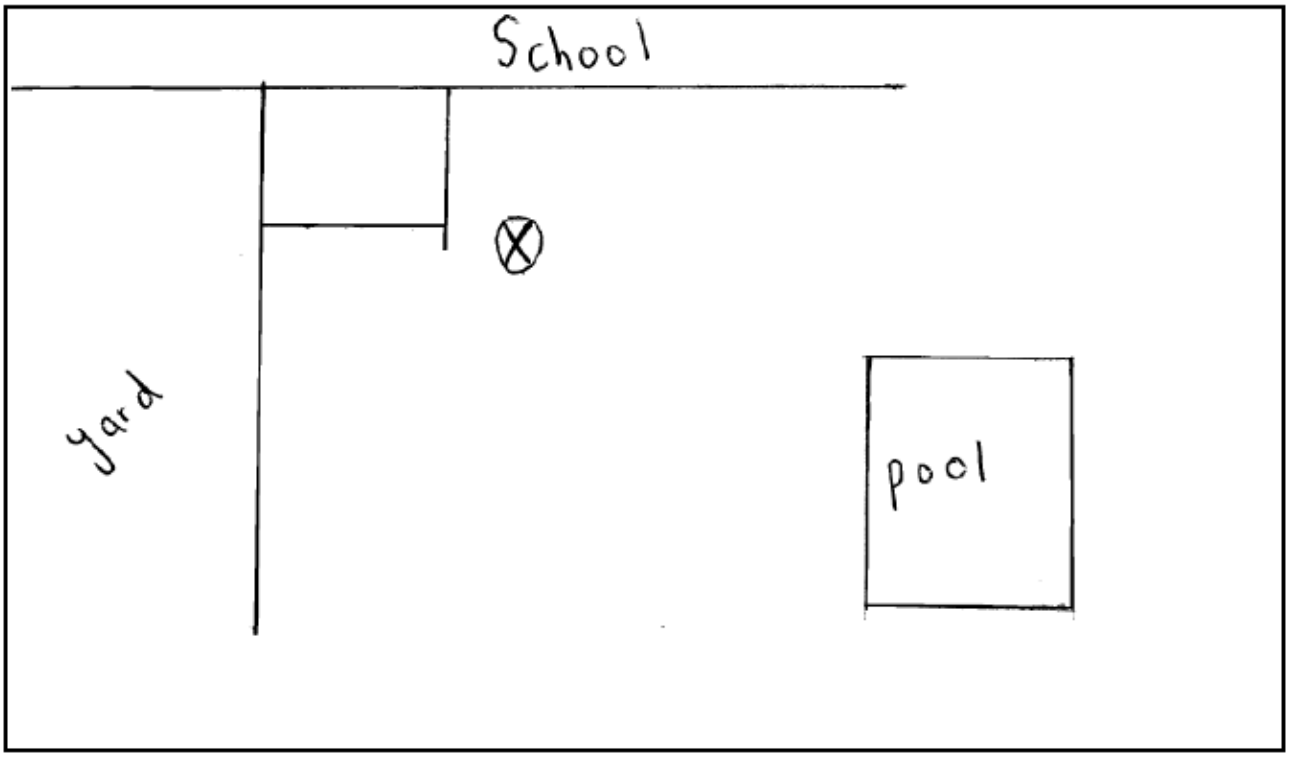
11. FTA Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.
12. Handbook of Acoustical Measurements and Noise Control, Cyril M. Harris, 1998.
13. Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, U.S. Environmental Protection Agency, March 1974.
14. Long Beach Municipal Code Chapter 8.80 Noise, City of Long Beach, 2010.
15. Noise Element of the City of Carson General Plan, City of Carson, 2004.
16. Noise Element of the Los Angeles City General Plan, Los Angeles Department of City Planning, 1999.
17. Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, U.S. Environmental Protection Agency, Dec 1971.
18. Port of Los Angeles China Shipping EIR Noise Section.
19. Port of Los Angeles Trapac EIR Noise Section.
20. Port of Long Beach Environmental Protocol, Port of Long Beach, 2006.
21. TI Freeway Soundwall Discussions, City of Long Beach, Public Works, Phillip H. Balmeo, P.E., May, June 2010.

7 Noise Monitoring Field Data Sheets

NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/12/2012
Loc:	N-1 2789 WEBSTER		
SLM:	LD870	SN:	A0338
Mic:		SN:	
P/A:		SN:	

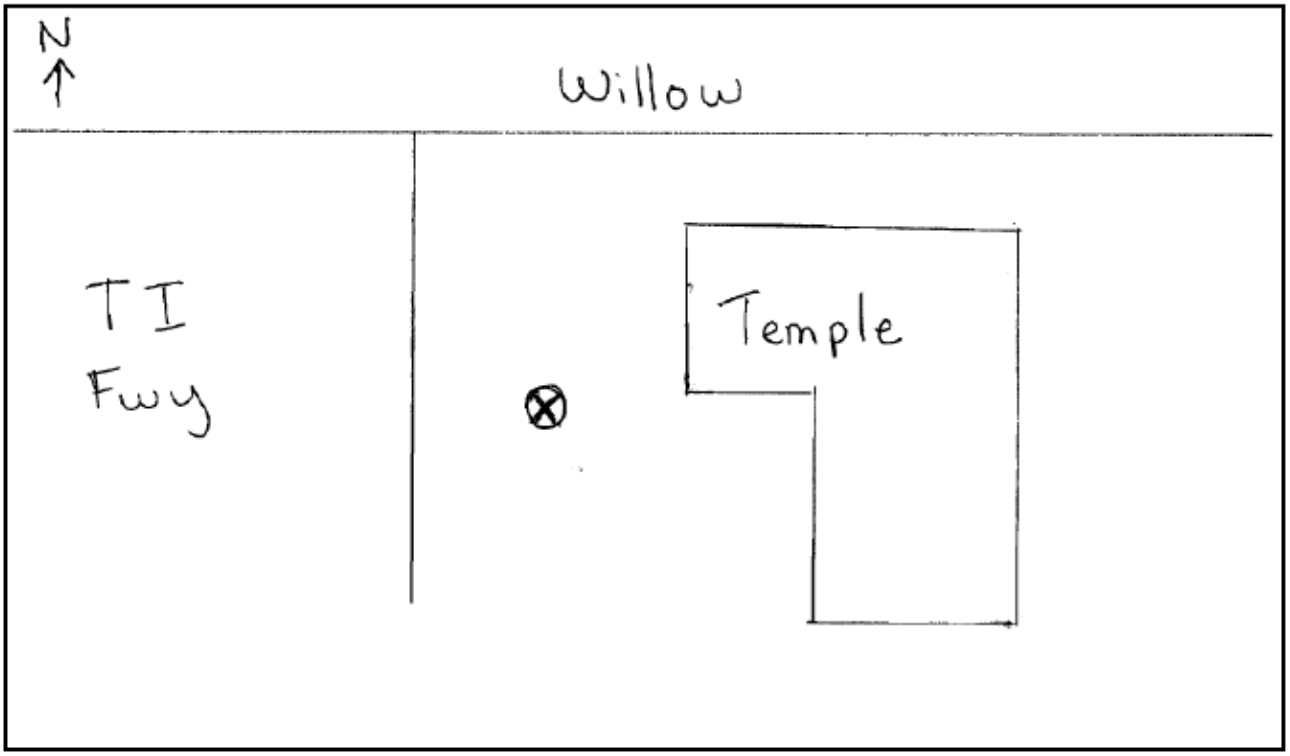
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:20 PM	2:25 PM										STEPHENS SCHOOL ACTIVITY,
3/12/12	3/13/12										INDUSTRIAL YARD, ICTF, TRAINS,
											LOCAL TRAFFIC



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/12/2012
Loc:	N-2 TEMPLE		
	CAMBODIAN BUDDHIST		
SLM:	LD870	SN:	A0340
Mic:		SN:	
P/A:		SN:	

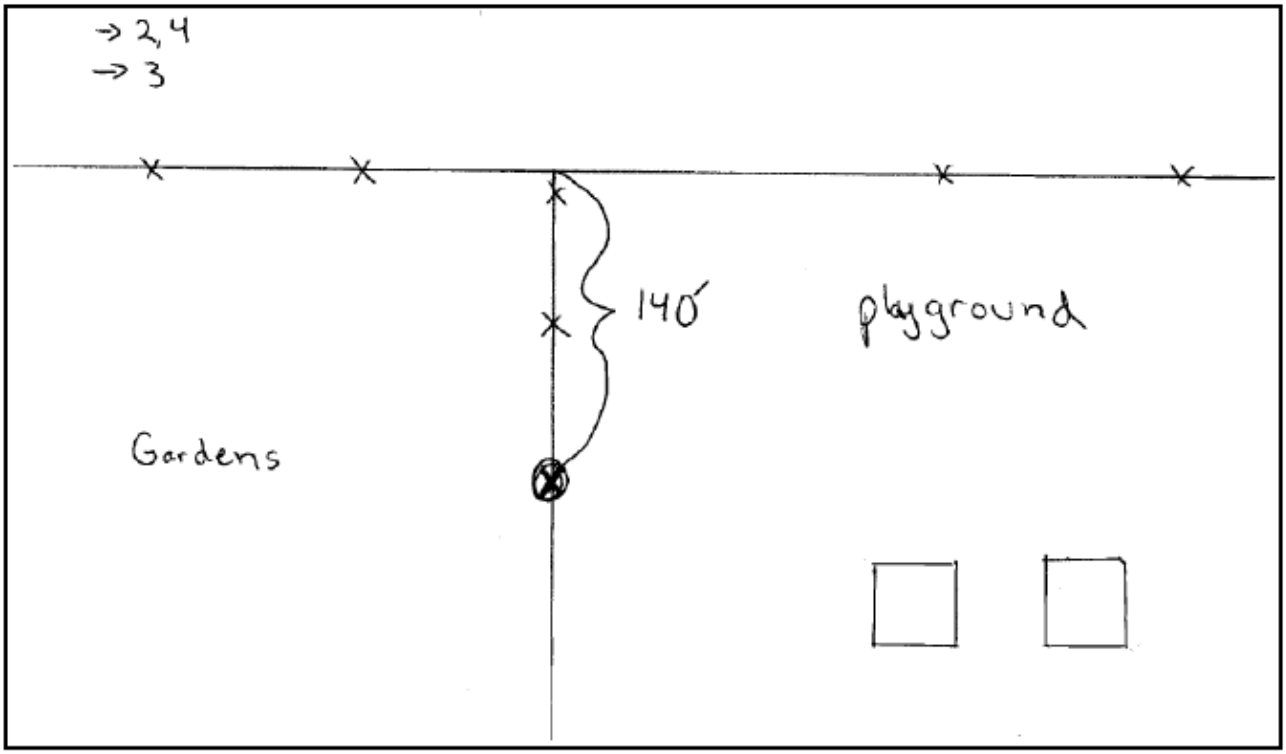
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:00 PM	2:31 PM										TRAFFIC, TI FWY, OVERCAST
3/12/12	3/13/12										



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/13/2012
Loc:	N-3 HUDSON SCHOOL		
SLM:	LD870 SYSTEM 2	SN:	A056
Mic:		SN:	
P/A:		SN:	

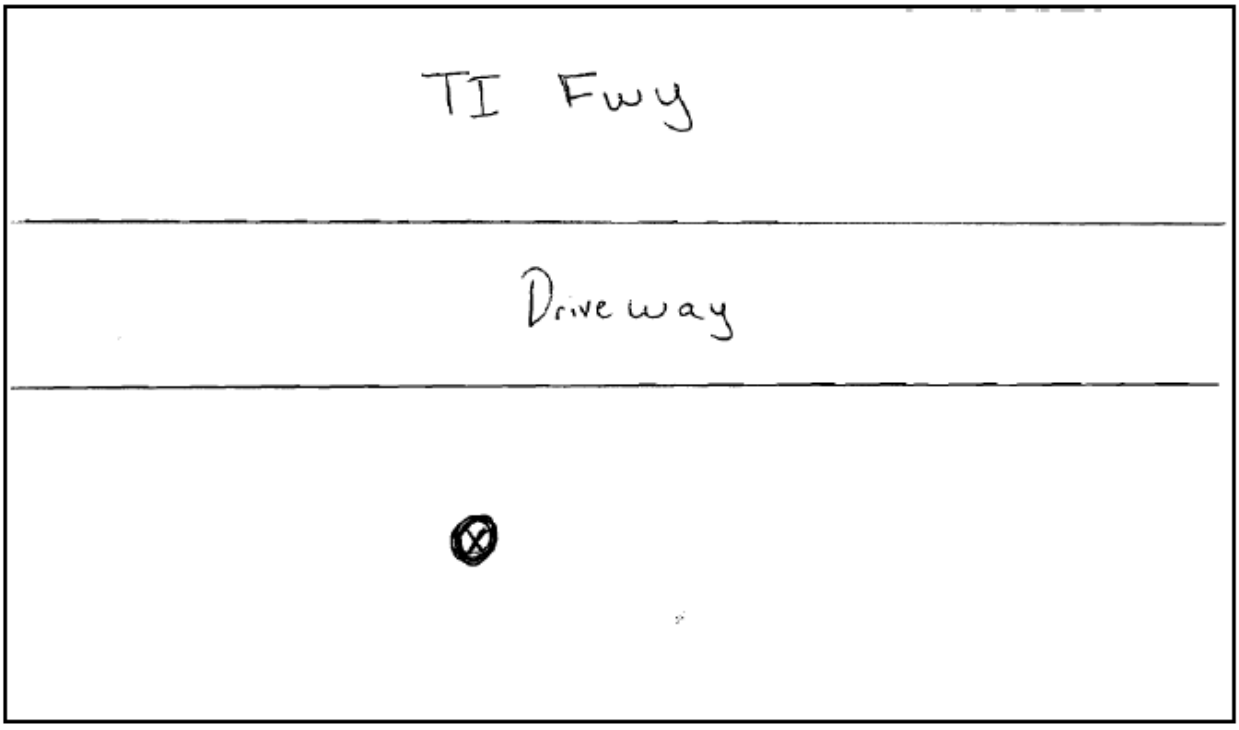
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
11:45 AM	4:01 PM										TRAFFIC, TI FWY, KIDS PLAYING
3/13/2012	3/15/2012										



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/22/2012
Loc:	HUDSON PARK		
SLM:	LD870	SN:	A0342
Mic:		SN:	
P/A:		SN:	

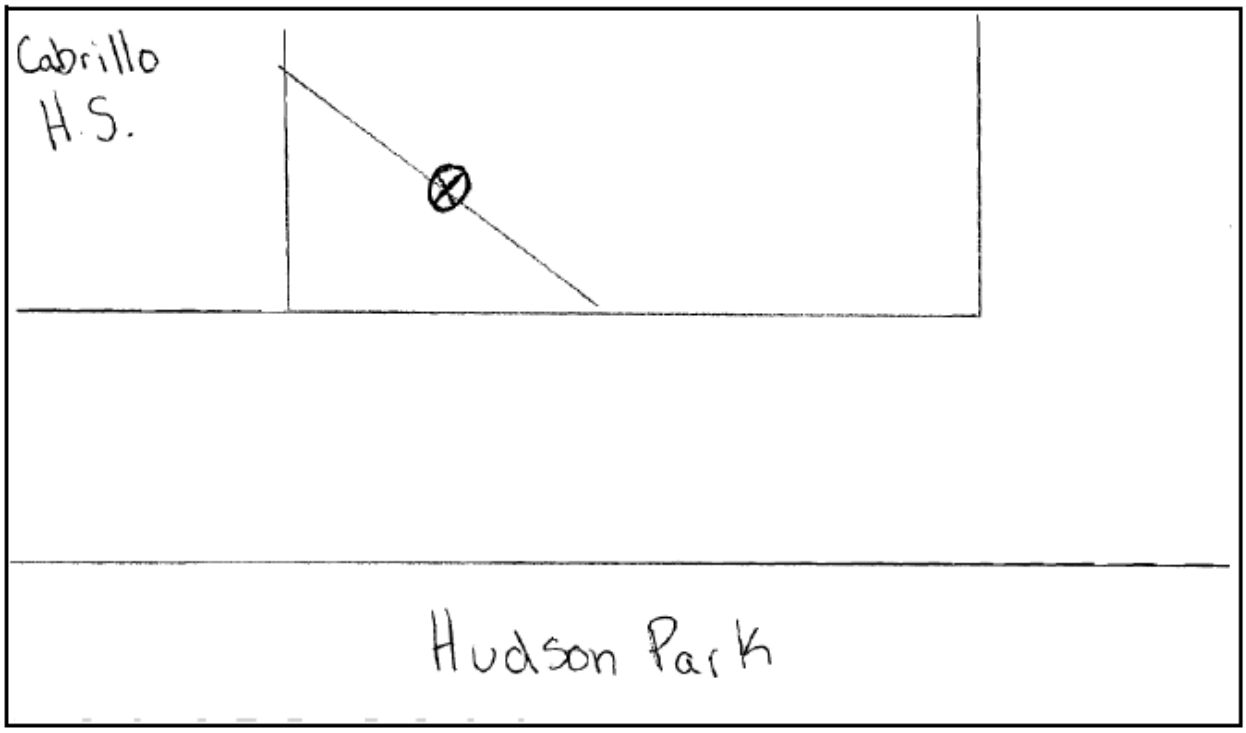
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
11:45 AM	12:05 PM	72.1	69.8	67.4	63.9	54.8	51.2	75.1	49.7	66.0	TI FWY, AIRCRAFT, CAR @ PARK
3:30 PM	3:50 PM	72.6	69.7	67.3	64.3	57.4	54.1	75.7	52.7	66.0	TRAIN HORN, TRAFFIC, TRAIN
8:39 AM	8:59 AM	72.1	68.9	66.6	62.4	50.2	46.7	76.2	45.5	64.8	TRAFFIC



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/19/2012
Loc:	CABRILLO HIGH SCHOOL		
SLM:	LD870	SN:	A01195
Mic:		SN:	
P/A:		SN:	

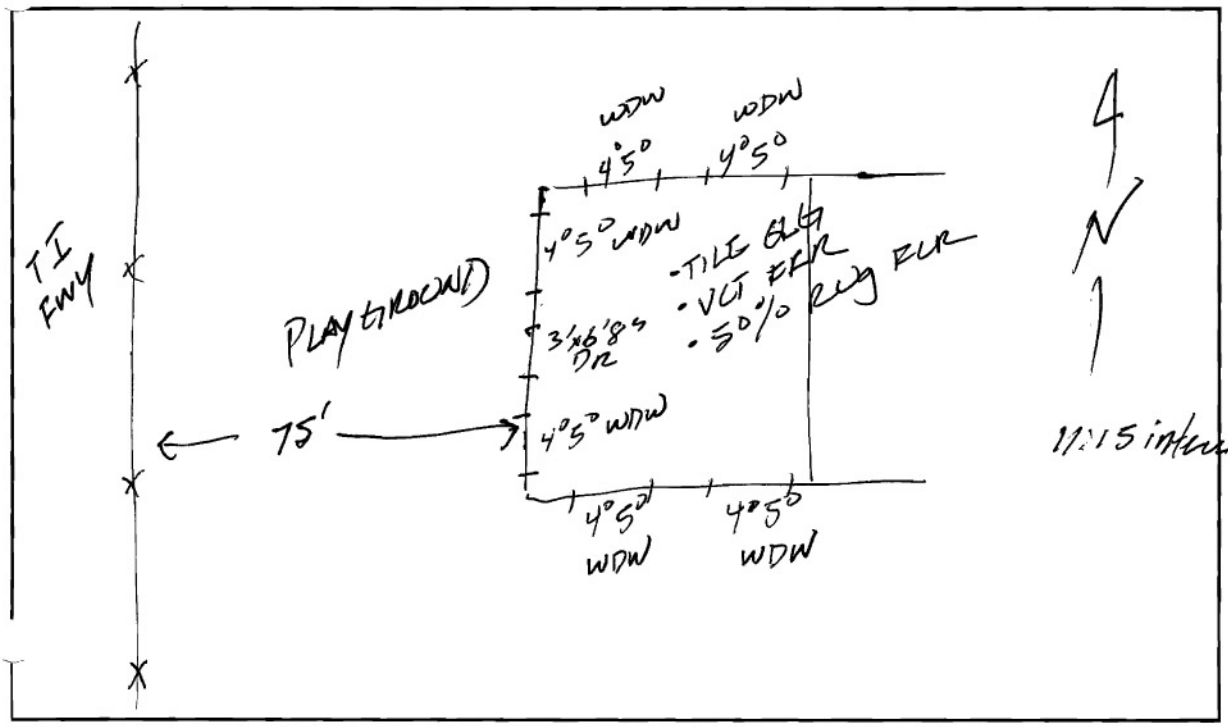
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:50 PM	2:02 PM										TI FWY, KIDS @ FIELD,
3/18/12	3/19/12										HUDSON TRAFFIC, TRAINS



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	2/11/08
Loc:	CABRILLO CHILD DEVELOPMENT Center 2205		
SLM:	**LD 870 System** #2 EXT, #4 INT	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

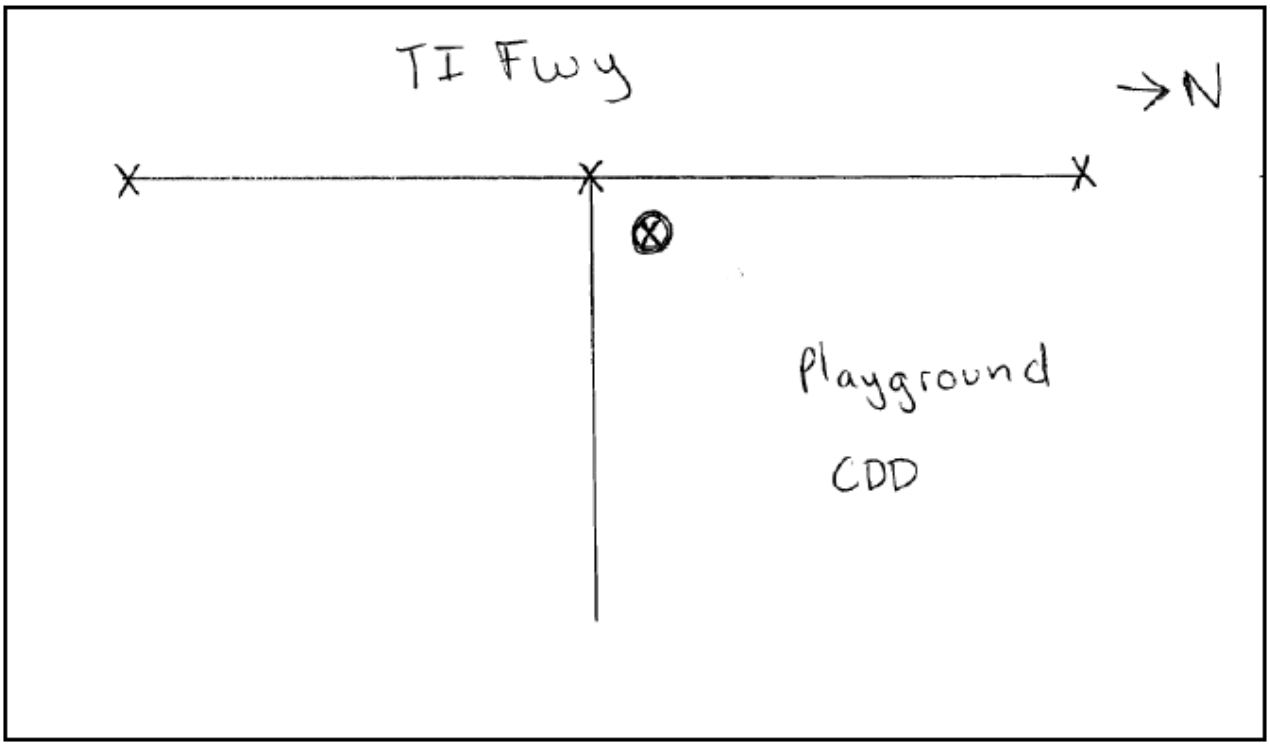
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
11:05	11:15	80.2	76.2	74.3	69.5	65.2	60.5	87.7	52.7	72.6	Traffic on TI Fwy,
11:15	11:25	78.0	74.4	71.3	68.6	64.2	60.6	85.4	55.7	71.0	CHILDREN PLAYING,
11:25	11:35	76.4	73.6	70.5	68.3	63.9	59.5	80.1	57.4	69.8	JET
11:35	11:45	80.3	76.4	72.3	69.6	65.4	63.1	84.0	60.9	72.3	
11:05	11:15	52.2	46.0	43.0	41.1	36.9	35.1	63.6	33.7	44.5	
11:15	11:25	60.6	53.7	43.4	40.1	35.2	32.4	66.9	31.7	49.5	
11:25	11:35	44.9	43.3	41.5	39.2	35.4	33.4	48.5	32.7	40.2	
11:35	11:45	50.1	45.2	42.0	40.0	36.4	34.2	61.2	33.6	43.7	



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/12/2012
Loc:	N-6		
SLM:	LD870	SN:	1195
Mic:		SN:	
P/A:		SN:	

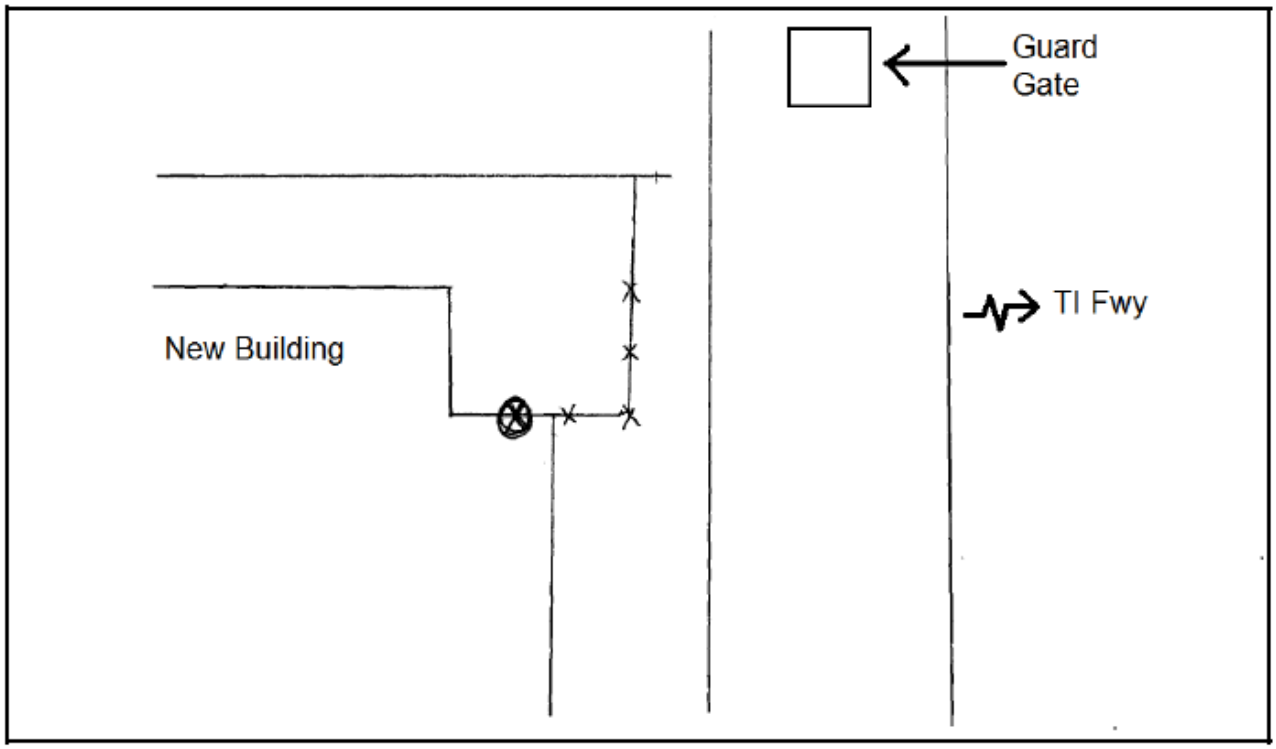
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
11:30 AM	12:38 PM										TRAFFIC ON TI FWY, OVERCAST
3/11/12	3/12/12										



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/22/2012
Loc:	VILLAGES OF CABRILLO		
SLM:	LD870	SN:	1195
Mic:		SN:	
P/A:		SN:	

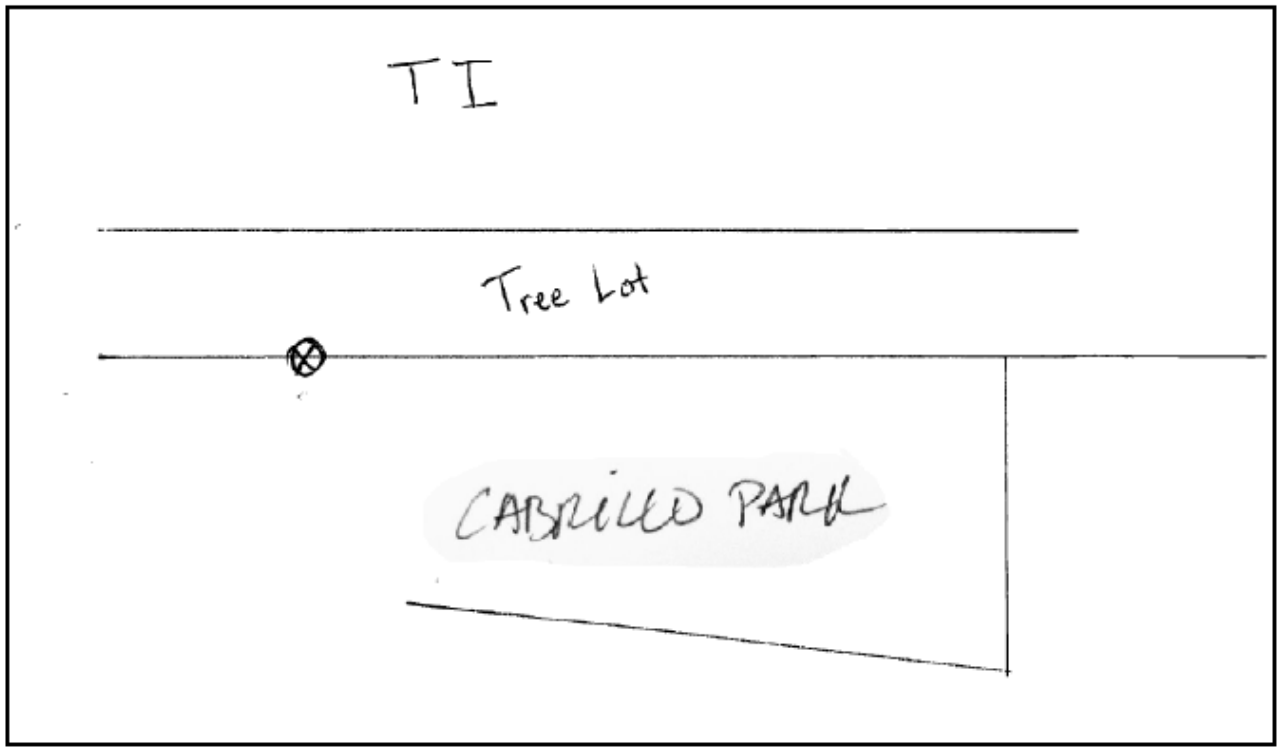
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
11:26 AM	12:04 PM										TRAFFIC ON TI FWY
3/21/12	3/22/12										



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/22/2012
Loc:	CABRILLO PARK		
SLM:	LD870 SYSTEM 2	SN:	A056
Mic:		SN:	
P/A:		SN:	

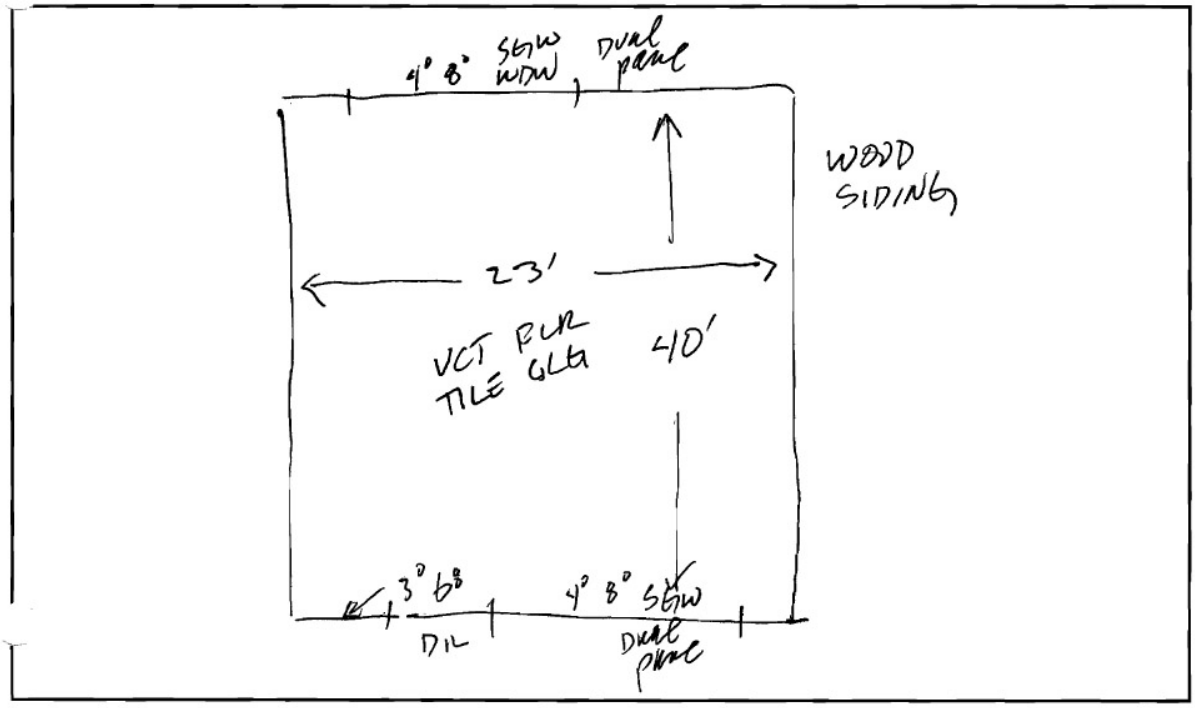
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
11:33 AM	12:13 PM										TI FWY
3/22/12	3/23/12										



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	2/12/08
Loc:	Bethune School Classroom 102 NR		
SLM:	**LD 870 System**	**SN:**	870B1195
Mic:		**SN:**	
P/A:		**SN:**	

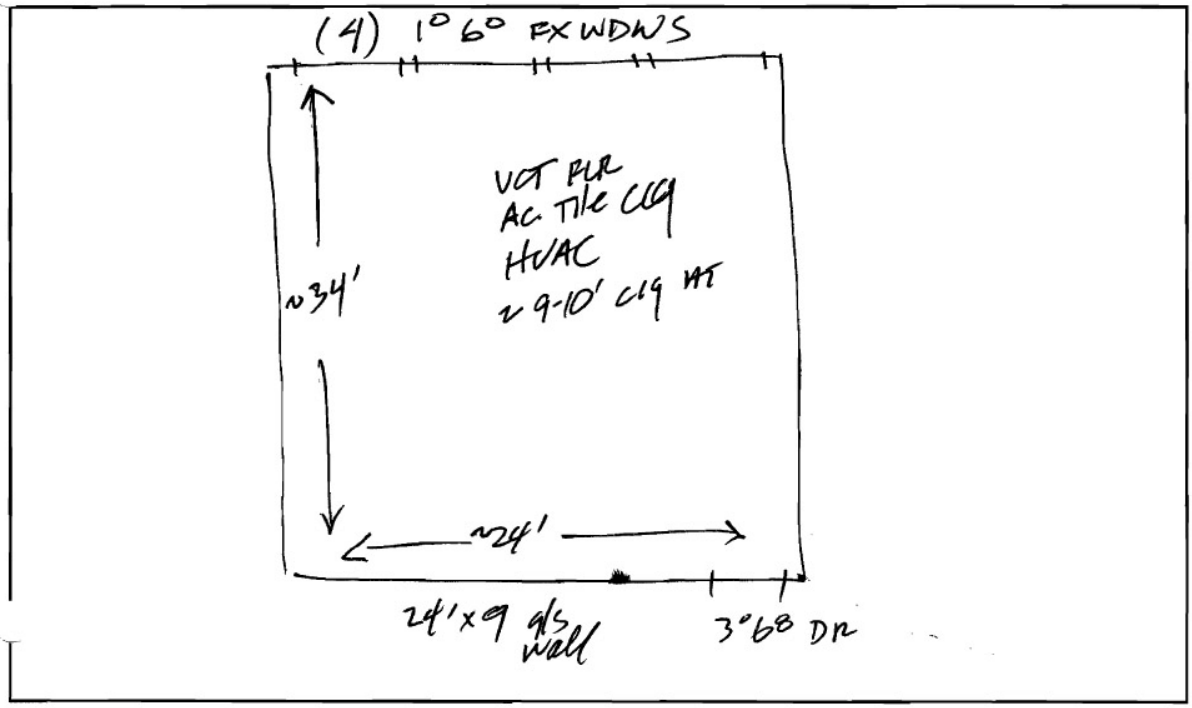
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
3:00 pm	4:00 pm	44.6	42.2	39.0	37.4	33.1	31.6	50.2	30.5	38.8	Traffic, kids playing INTERMI
3:00 pm	4:00 pm	70.7	68.6	66.2	63.4	57.3	52.7	~~100.5~~ 74.9	~~24.9~~ 51.5	64.9	EXTENSION
											NR = 64.9 -38.8 26.1 dB



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	**Date:**	2/19/08
Loc:	CABRILLO H.S		
	CLASSROOM 1128		
	4:30 pm		
SLM:		**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

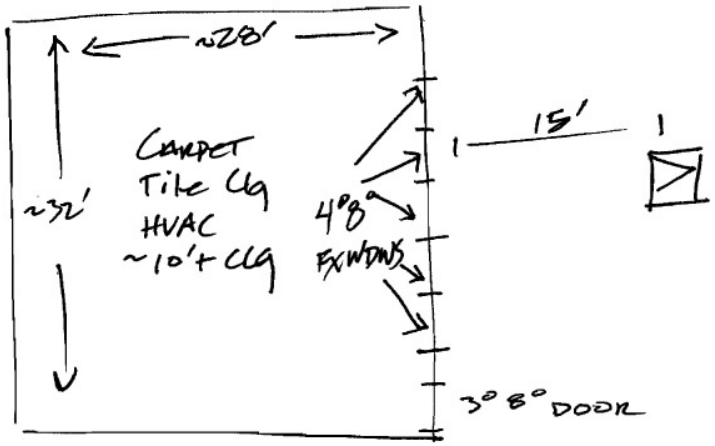
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
4:30pm		109.1	108.5	107.3	104.8	100.5	99.3	109.2	99.3	105.5	EXTERIOR
		62.0	61.9	61.6	61.2	60.3	60.3	62.0	60.3	61.1	INTERIOR
		39.8	34.9	32.7	31.0	29.3	28.6	43.0	28.6	32.7	AMBIENT



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	**Date:**	2/19/08
Loc:	HUDSON SCHOOL		
	CLASSROOM 52		
	NR TEST 4:00pm		
SLM:		**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

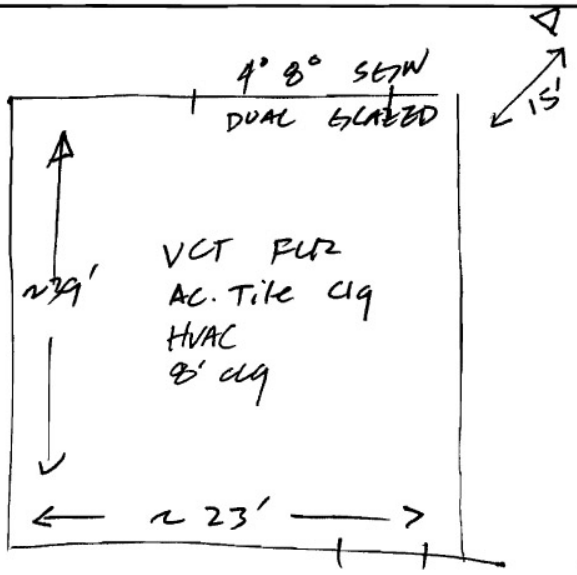
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
4:00pm		106.7	105.8	104.9	103.7	100.7	99.4	107.3	99.4	103.8	EXTERIOR
		73.9	73.5	72.4	69.9	67.5	66.3	73.9	66.3	70.8	INTERIOR
		40.8	39.0	37.6	~~38.4~~	~~37.2~~	~~45.8~~ 33.2	45.8	33.2	36.9	AMBIENT



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	**Date:**	2/19/08
Loc:	STEPHENS MIDDLE SCHOOL		
	CLASSROOM PC2		
	NR TEST		
SLM:		**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

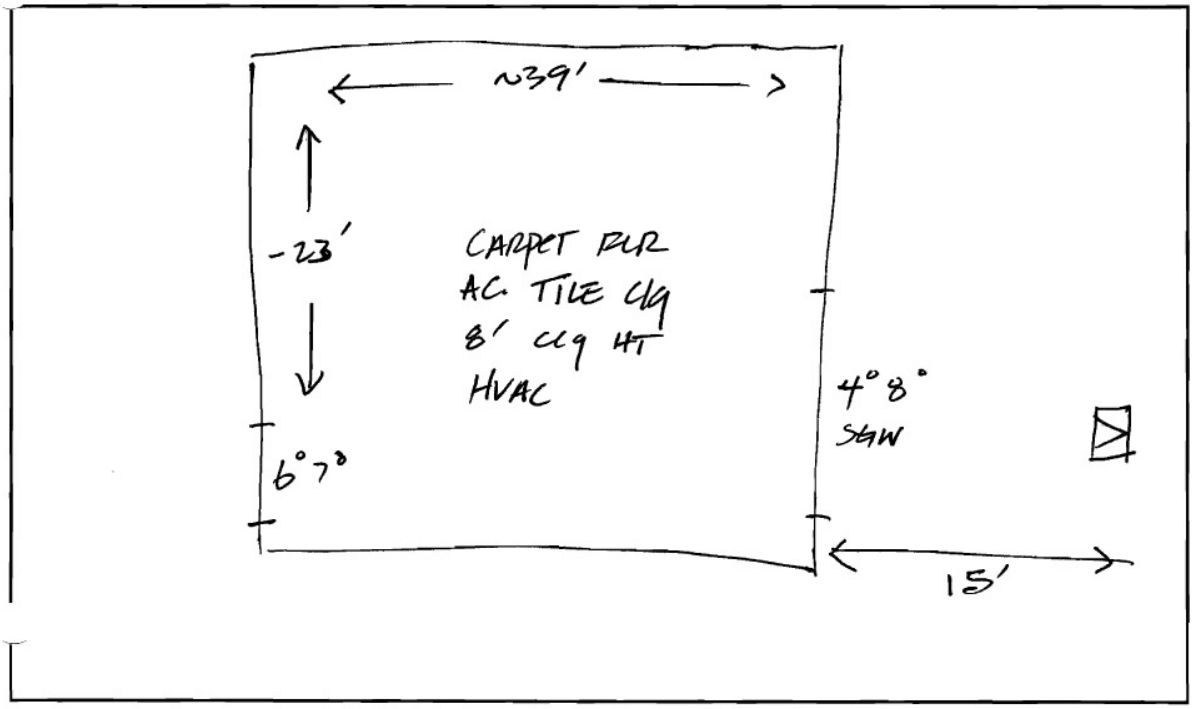
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
1:30pm		62.3	61.1	60.6	60.1	56.8	56.0	62.7	55.9	59.0	INTERIOR
		101.7	100.1	99.4	97.7	94.7	89.7	102.6	89.2	98.1	EXTERIOR
		37.9	34.5	32.0	29.6	27.5	27.2	41.2	27.2	31.4	AMBIENT



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	**Date:**	2/19/08
Loc:	WEBSTER SCHOOL		
	CLASSROOM B-48		
	NR TEST 3:15pm START		
SLM:		**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

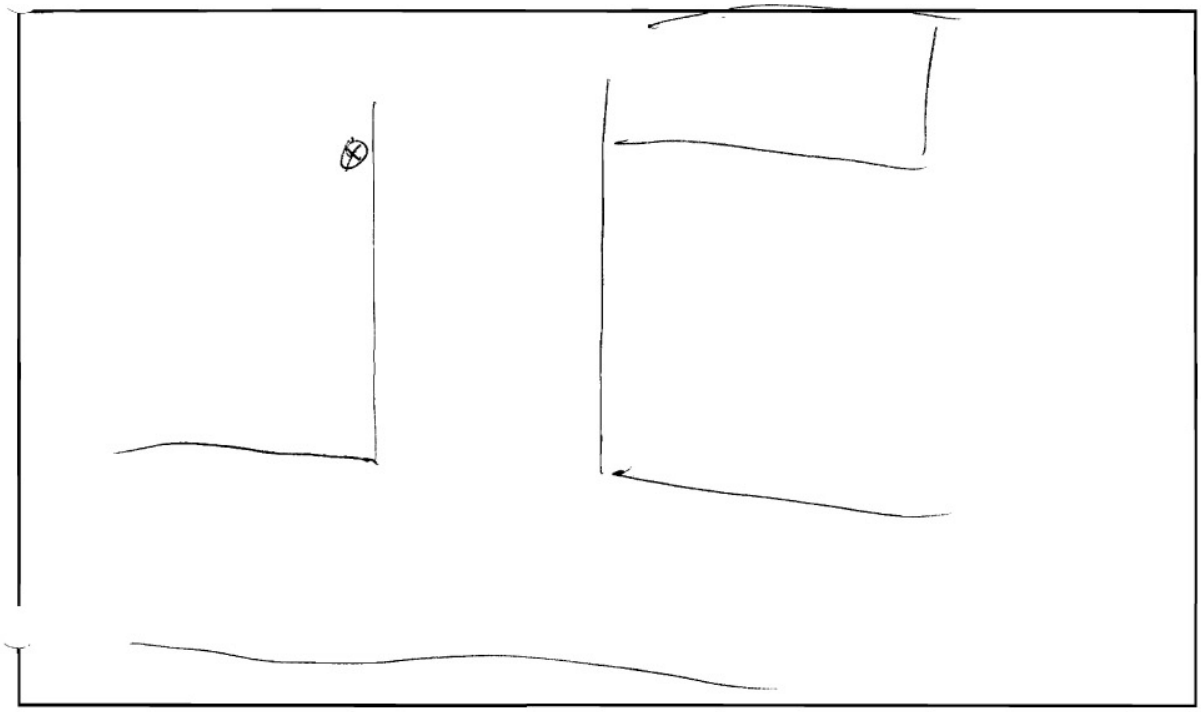
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
3:15pm		107.9	107.5	106.5	105.9	100.8	99.1	108.4	98.9	105.3	EXTERIOR
		68.4	67.9	67.2	66.6	65.5	65.2	68.4	65.2	66.7	INTERIOR
		39.9	35.9	30.8	29.6	27.8	27.2	43.0	27.2	31.9	AMBIENT



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/17/08
oc:			
	CERVERA ST NB		
SLM:	**LD 870 System**	**SN:**	870A0338
Mic:		**SN:**	
P/A:		**SN:**	

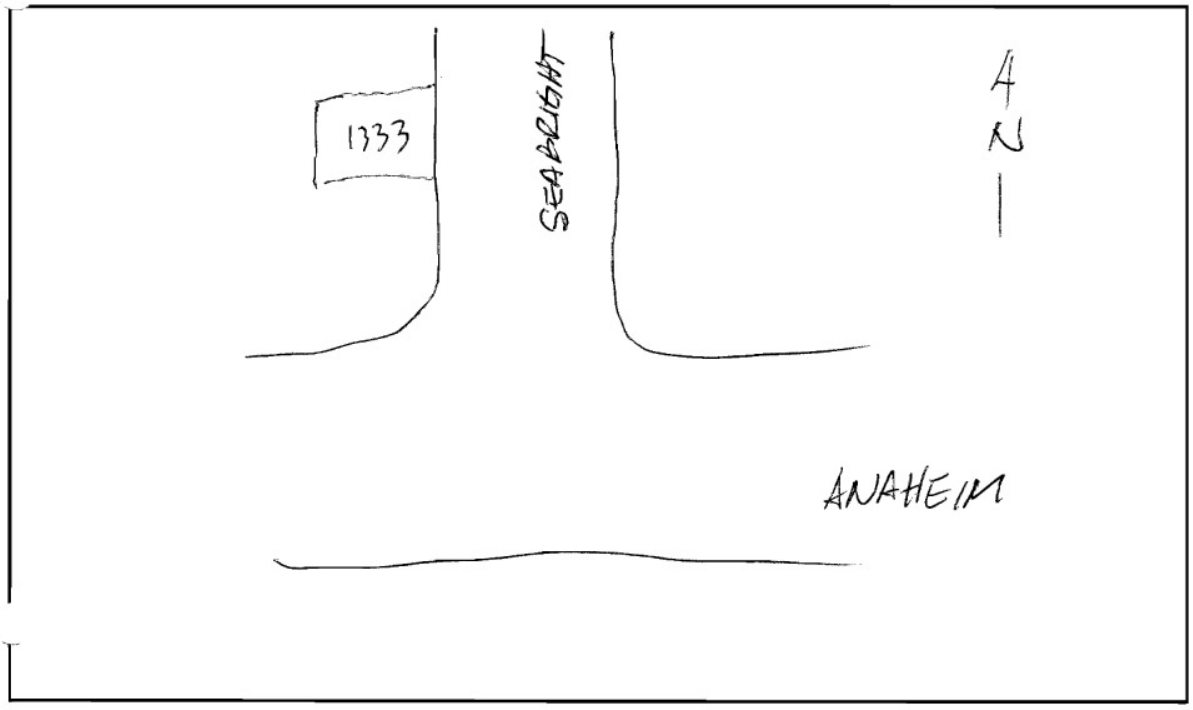
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:30	AM	70.8	68.8	67.3	65.2	62.2	60.3	79.9	59.7	66.4	TRUCK TRAFFIC, INDUSTRIAL ACTIVITY
1:05	pm	84.1	79.1	69.7	63.6	57.3	55.3	87.6	54.9	73.4	Truck Traffic,
5:00	pm	70.4	68.1	64.8	61.4	57.2	56.5	72.5	55.9	63.8	Truck Traffic, Train



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/17/08
Loc:	1333 SEABRIGHT AVE N9		
SLM:	LD 870 System 4	**SN:**	870B1195
Mic:		**SN:**	
P/A:		**SN:**	

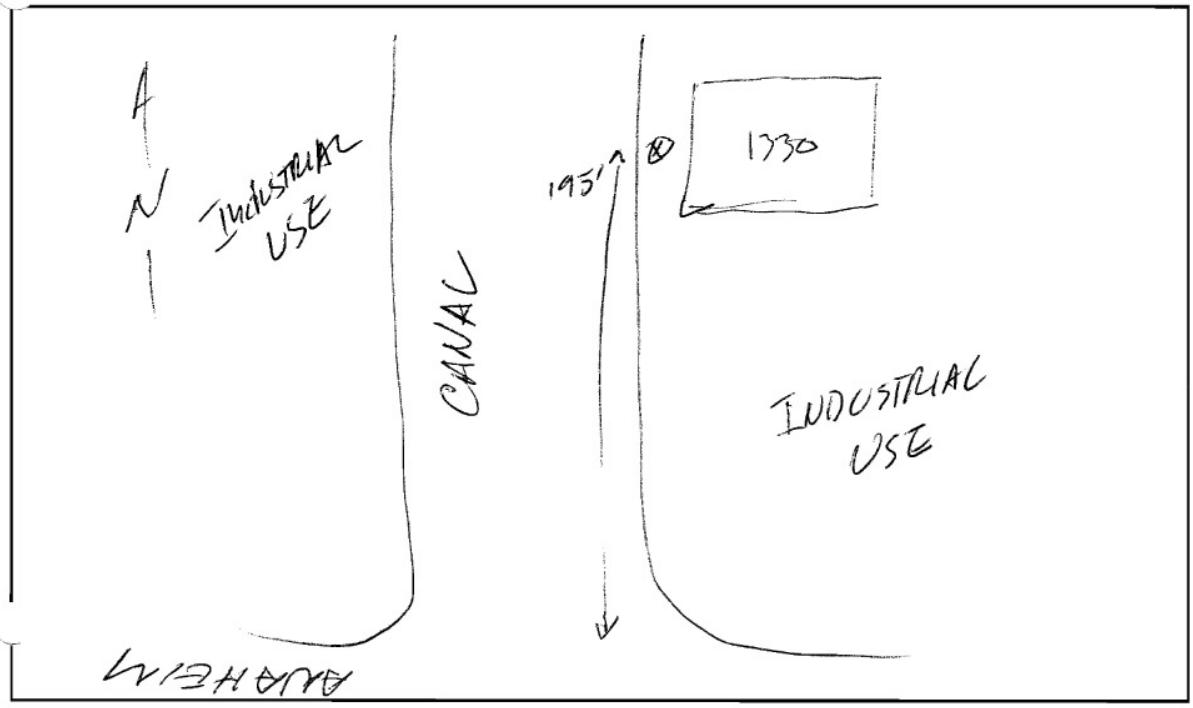
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:10 pm		71.9	62.3	58.4	56.6	53.2	52.3	81.5	51.5	62.7	Traffic Noise, industrial activity
12:48 pm		68.1	63.3	60.6	58.8	56.6	54.1	93.3	53.0	66.4	Traffic noise, industrial activity, birds airplane, train
4:42 pm		70.3	66.3	62.8	60.6	58.3	56.7	81.8	55.2	64.1	Industrial noise, traffic noise, radio,



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/17/08
Loc:	1330 CANAL ST N90		
SLM:	**LD 870 System** 4	**SN:**	870A0338
Mic:		**SN:**	
P/A:		**SN:**	

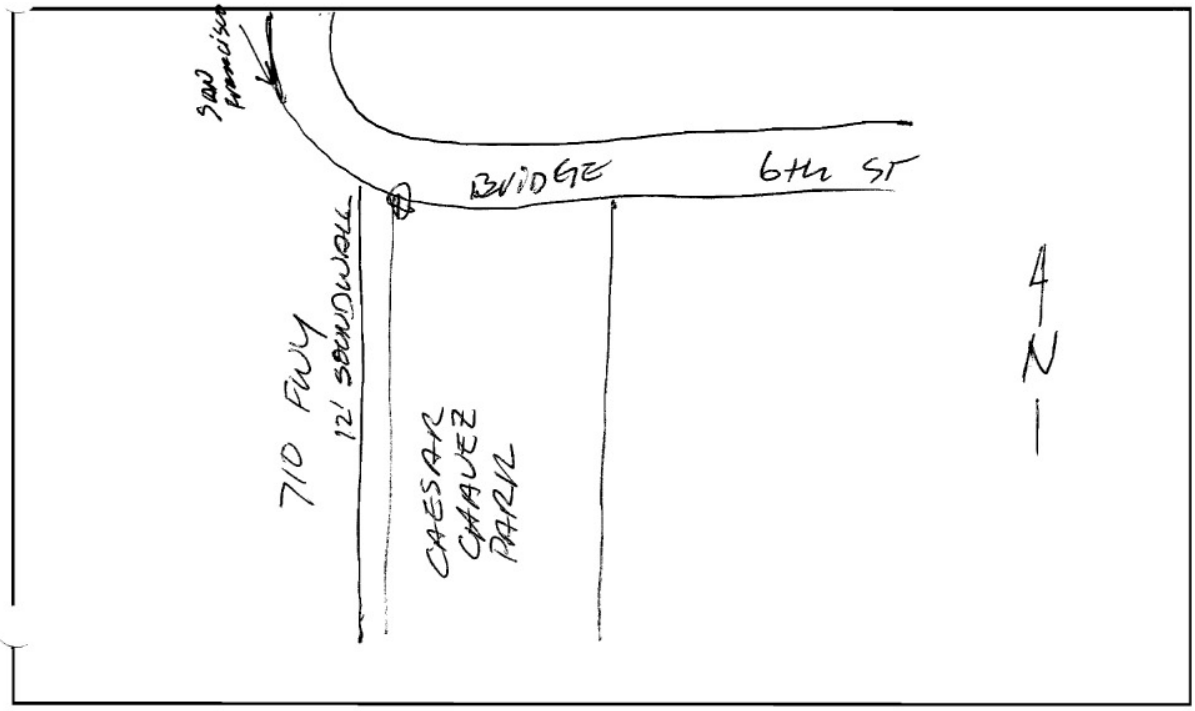
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:40am		71.7	68.2	65.6	63.2	59.2	55.4	89.2	54.5	66.5	Industrial noise, Traffic
12:27pm		74.6	70.6	67.4	65.2	60.0	54.7	80.0	53.5	67.1	Industrial noise, Traffic,
4:20pm		76.6	73.2	69.9	67.3	61.6	56.3	80.2	54.2	69.4	Industrial noise, Traffic,



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/15/08
Loc:	CAESAR CHAVEZ PARK		
	N11		
SLM:	**LD 870 System** 4	**SN:**	870A0338
Mic:		**SN:**	
P/A:		**SN:**	

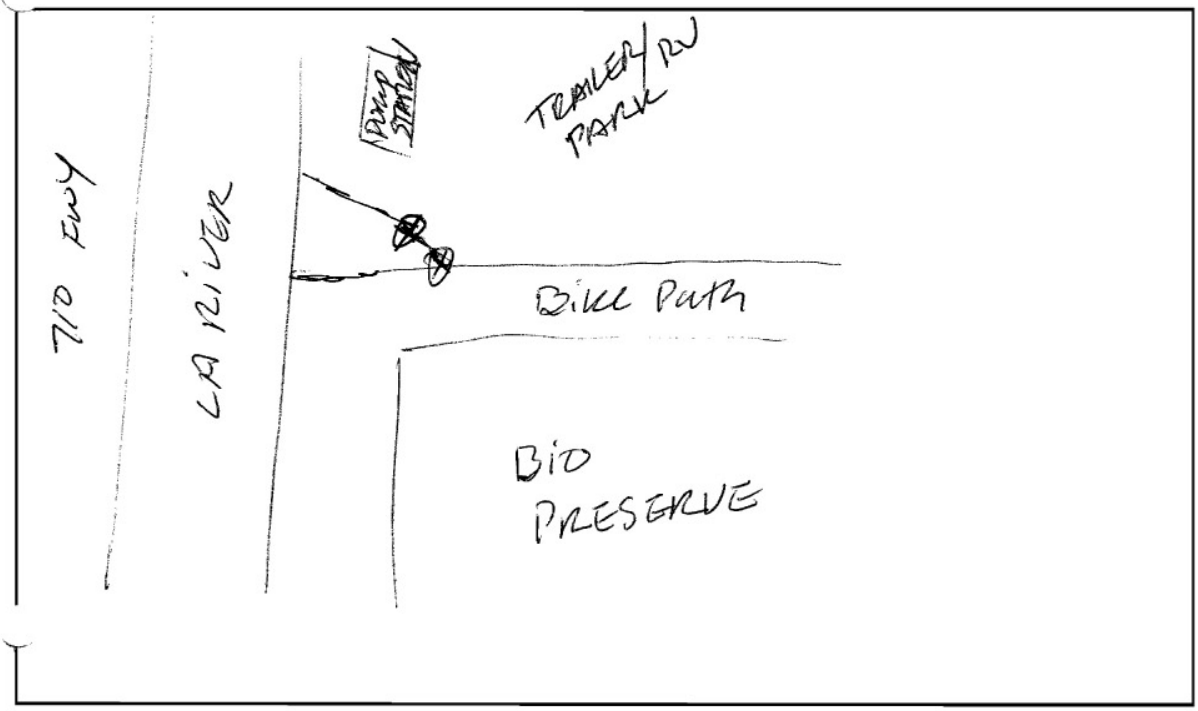
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:00pm		67.0	65.7	63.7	62.0	57.0	53.7	69.2	52.5	62.6	Traffic on 710, 6th Street, Aircraft
1:25pm		67.5	65.7	64.6	62.7	59.5	57.3	70.7	56.8	63.2	710 Traffic, Aircraft
5:01pm		69.3	67.5	66.3	65.3	63.0	60.0	78.8	58.9	65.7	710 Traffic, children playing



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/15/08
oc:	BIO PRESERVE		
	N12		
SLM:	**LD 870 System** 4	**SN:**	870A0338
Mic:		**SN:**	
P/A:		**SN:**	

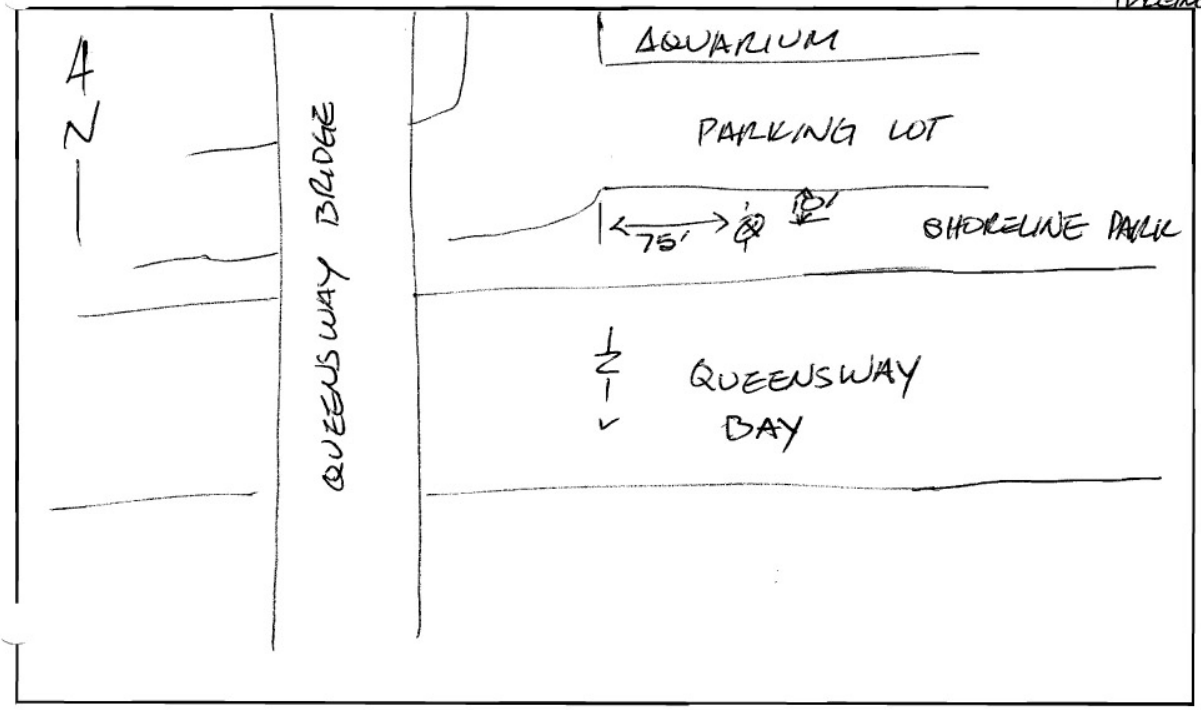
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:37am		59.0	57.5	55.8	54.9	53.2	52.0	61.7	51.5	55.4	Truck Traffic, Birds
12:55pm		59.5	58.7	57.4	56.2	54.3	53.4	61.3	52.4	56.6	Truck traffic,
4:37pm		66.2	60.7	58.8	57.5	56.0	54.2	72.4	53.7	59.2	Truck Traffic, RV Park Helicopter



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/10/08
oc:	PIER POINT LANDING/PARK		
	SHORELINE PARK		
	N13		
SLM:	**LD 870 System** 4	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

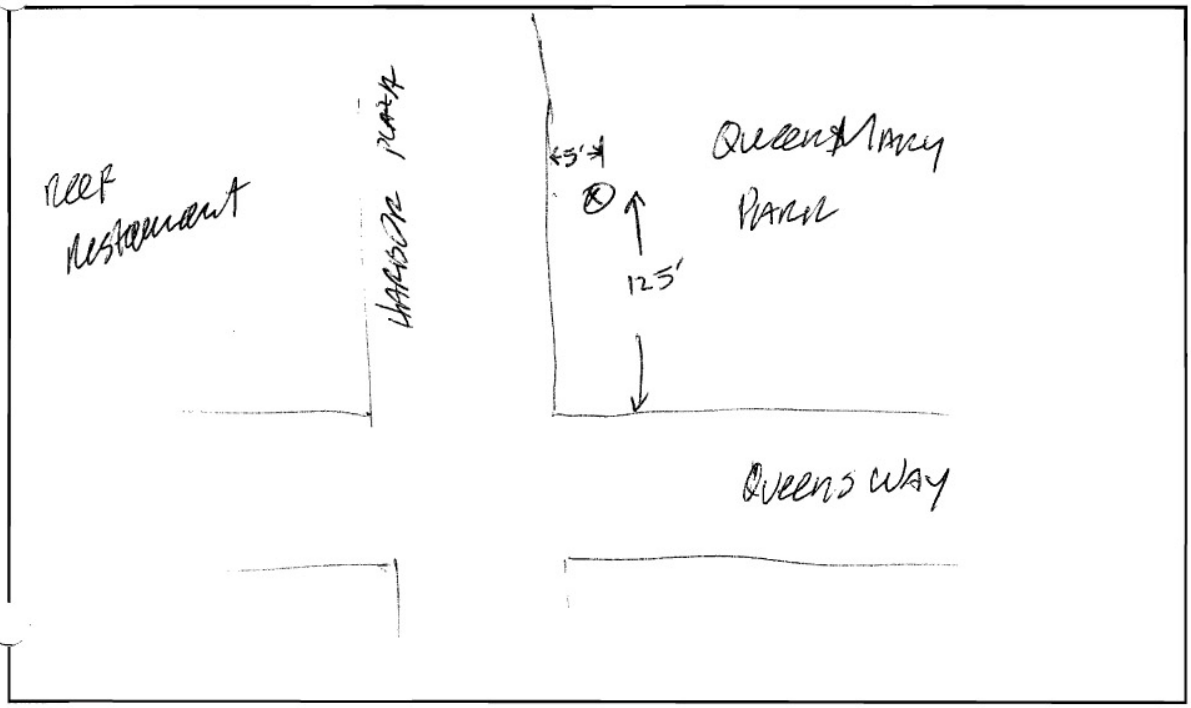
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:25 AM		63.6	58.9	56.8	55.5	53.9	52.5	68.7	52.2	56.9	AQUARIUM P/A, BIRDS, DISTANT TRAFFIC, Helicopter, AIRCRAFT
1:30 pm		62.4	58.4	56.4	55.4	54.0	53.4	66.4	52.9	56.4	BIRDS, PARKING LOT VEHICLES, DISTAN TRAFFIC, G/A FLYOVER
4:45 pm	5:0	72.1	72.3	70.6	54.9	53.3	52.5	72.5	51.7	66.3	BIRDS, LOCAL TRFC, PARKING LOT, TRUCK IDLEING



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-15-08
oc:	QUEEN MARY PARK N 14		
SLM:	**LD 870 System** 4	**SN:**	870A0338
Mic:		**SN:**	
P/A:		**SN:**	

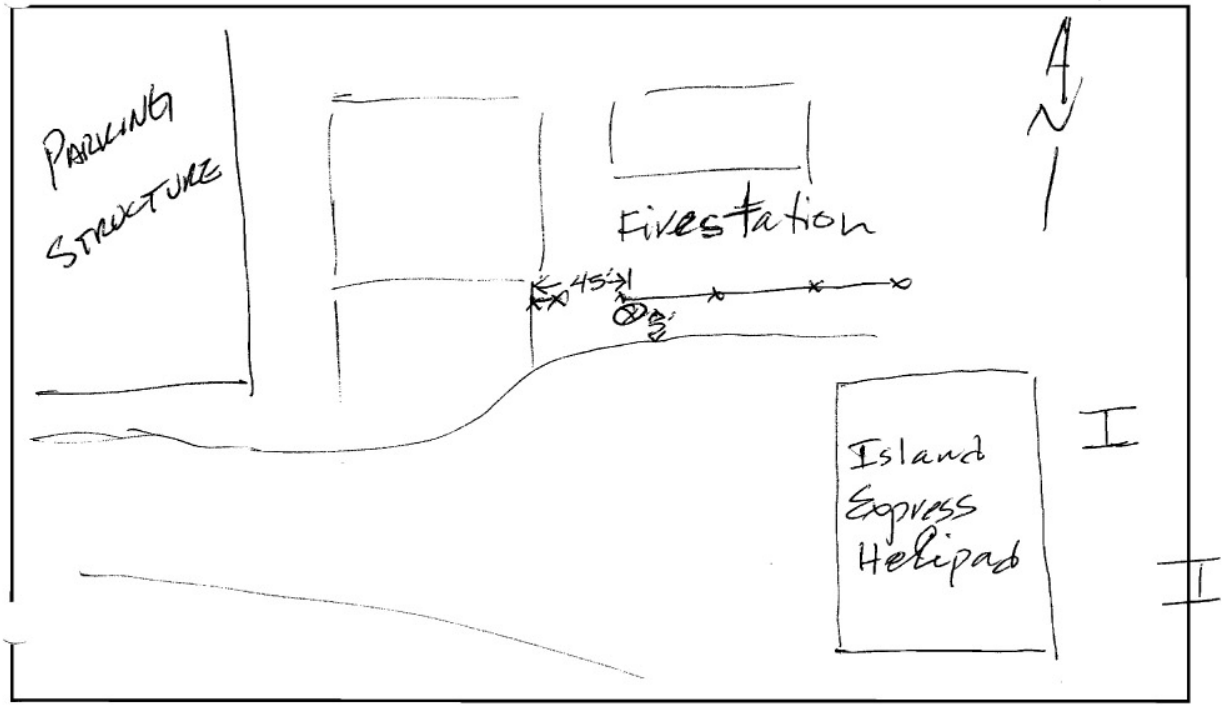
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:10pm		73.2	69.7	67.3	65.3	59.4	52.7	78.8	51.4	66.5	Truck Traffic, Helicopter
12:35pm		71.4	67.7	65.2	62.4	57.7	55.2	76.1	54.2	64.3	Truck Traffic, People Talking, Airplane
4:13pm		72.3	70.0	67.9	66.3	62.7	58.0	80.7	56.5	67.3	Truck Traffic, Bus



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/10/08
Loc:	Fivestation 6		
	NLS		
SLM:	**LD 870 System** 4	**SN:**	870A0338
Mic:		**SN:**	
P/A:		**SN:**	

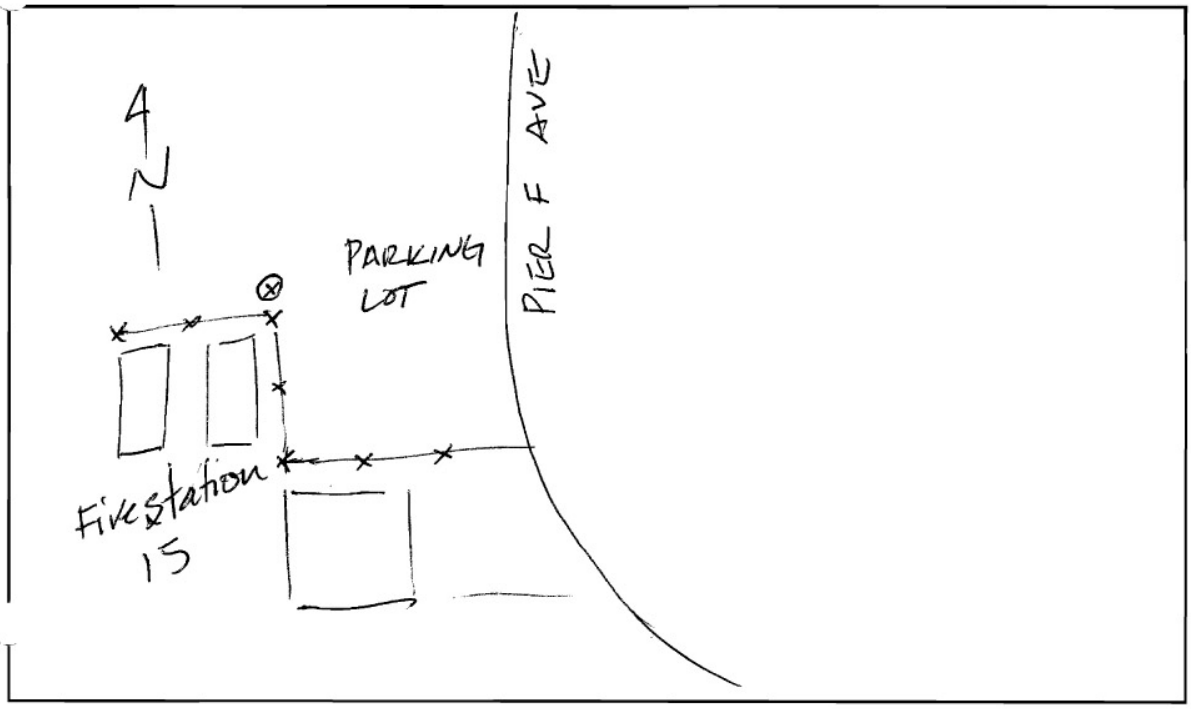
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:30am	9:37am							85.8		75.4	Helicopter SEL 101.7
9:37		64.9	63.7	61.8	59.9	57.0	54.5	66.0	54.5	60.7	Hwy Trks on Queens Way
1:05pm											
1:05pm		73.3	65.0	62.9	61.5	58.8	54.1	77.4	53.8	63.9	Traffic on Queens Way
											Distant Aircraft,
											Fire Trucks
4:20pm		80.6	73.6	66.5	63.3	60.1	58.1	85.3	57.3	70.4	Traffic on Queens Way,
											Aircraft, Helicopter



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/10/08
Loc:	Firestation 15 @ Pier F Ave N16		
SLM:	**LD 870 System** 4	**SN:**	870B1195
Mic:		**SN:**	
P/A:		**SN:**	

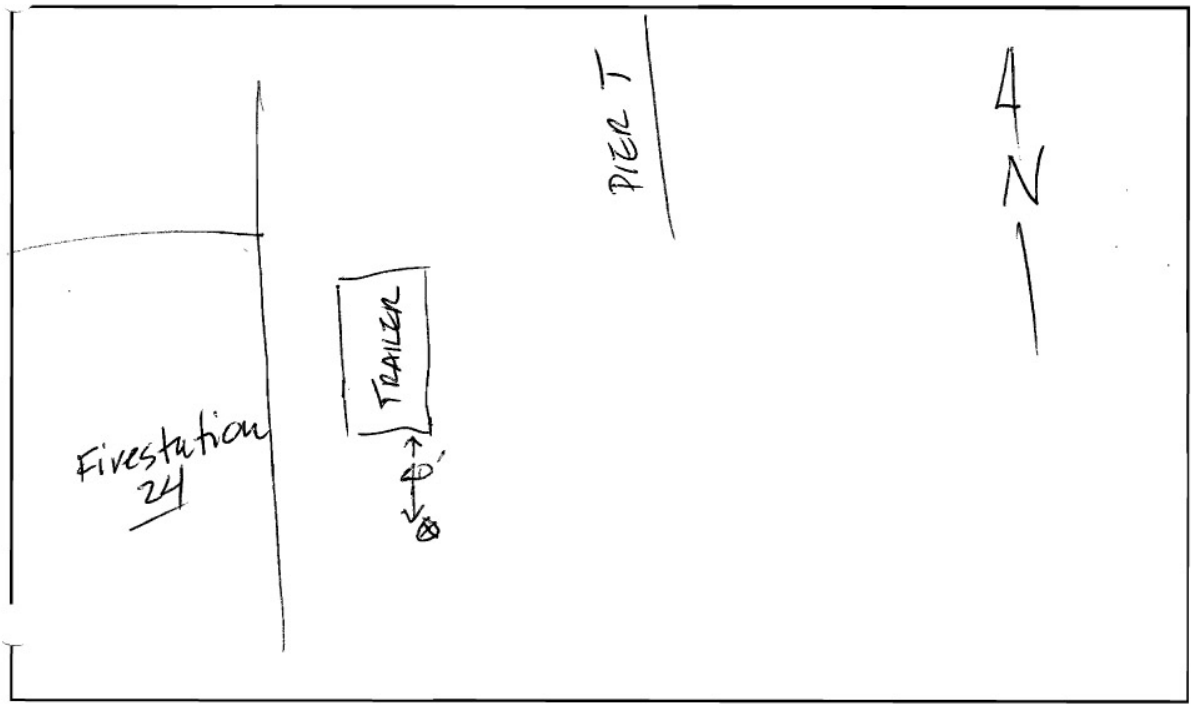
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:57am		64.6	62.1	59.6	57.8	55.3	54.0	70.0	53.6	59.1	Hvy Truck Trfc
12:38pm		65.3	63.5	60.9	58.8	55.8	54.8	69.2	54.2	60.1	Hvy Truck Trfc,
											SEAGULLS, PEOPLE
											TALKING, BOAT
3:55pm		64.9	62.9	60.4	58.4	55.1	53.5	70.9	52.6	59.7	Hvy Truck Trfc,
											DISTANT TRAIN HORN
											Aircraft, Birds
											Helicopter



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-11-08
Loc:	Firestation 24 N17		
SLM:	**LD 870 System** 4	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

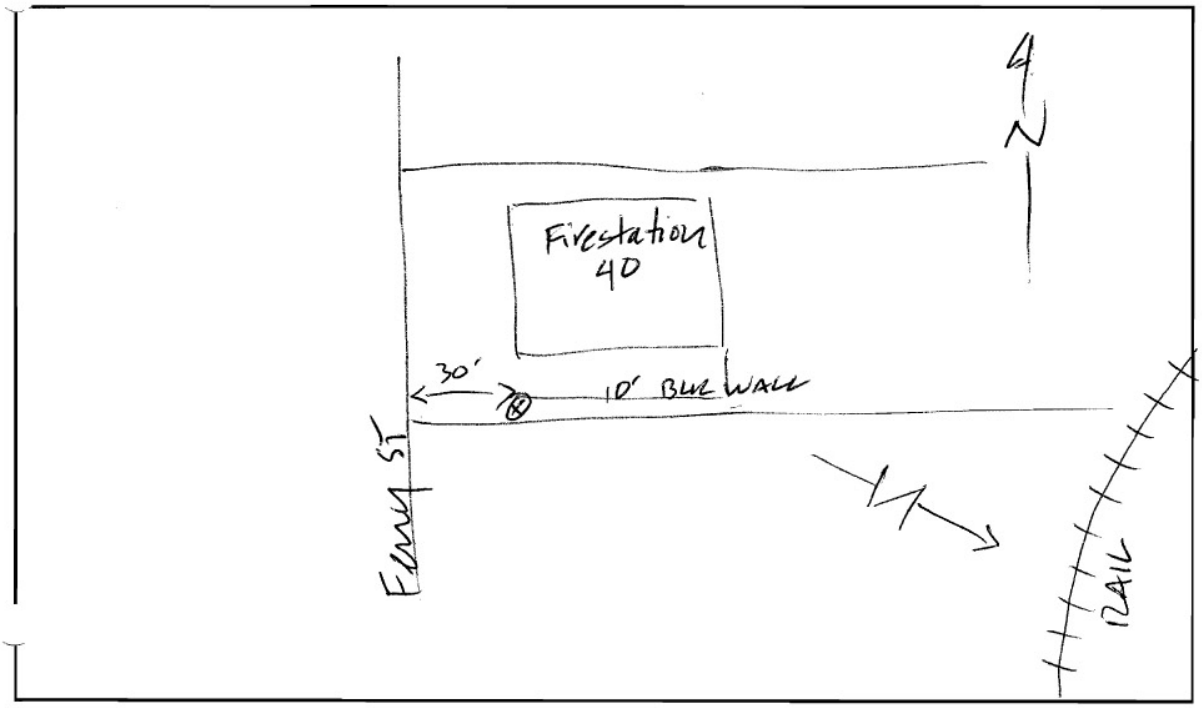
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:41 AM		66.4	62.1	59.5	58.5	57.0	56.4	76.1	55.7	60.2	Distant Traffic,
											Ship generators
											Fire Truck
1:05 PM		67.5	61.0	58.9	57.6	56.0	55.1	70.9	54.3	59.5	SHIP Generators, Traffic H
											BACK UP BEEPER, Airpla
											Distant Traffic, Helicopter
4:53		64.1	61.5	60.0	58.6	56.9	56.0	66.1	55.6	59.3	SHIP Generators/HORN
											Fire Station, Trains Horn,
											Distant Traffic



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-11-08
Loc:	Firestation 210 @ Ferry St. N18		
SLM:	**LD 870 System** 4	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

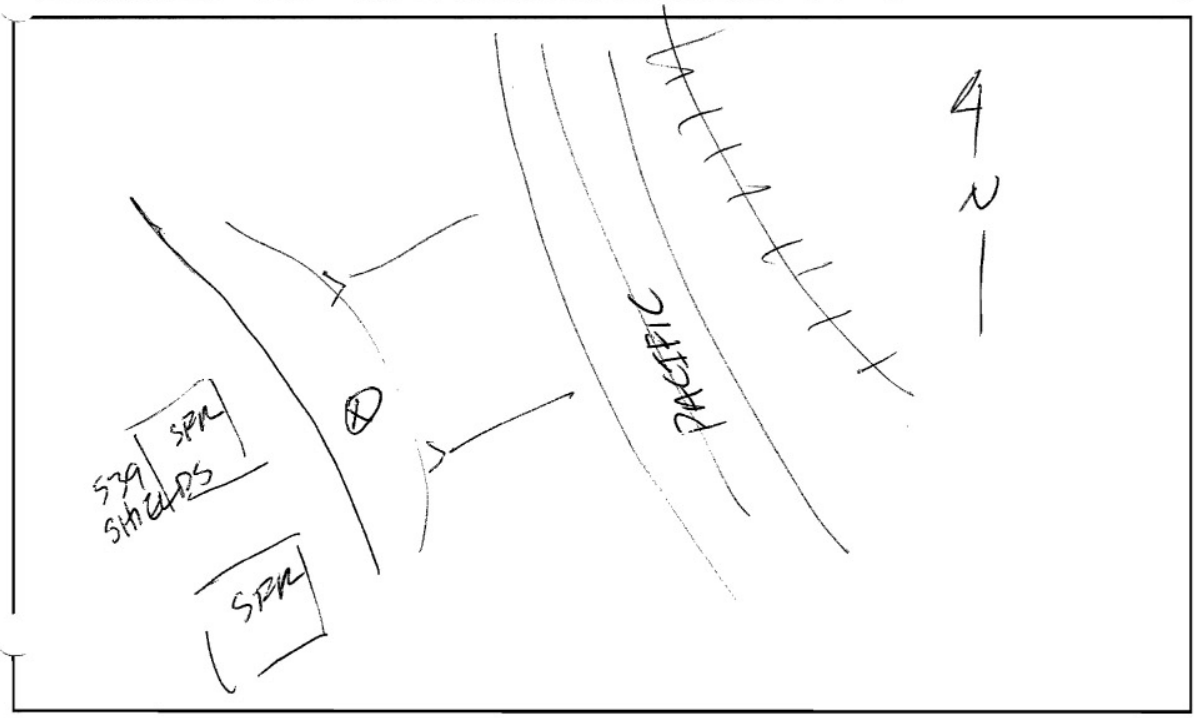
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:15 am		79.0	77.1	73.1	69.0	62.4	58.6	83.8	56.6	72.2	Traffic on Ferry Train Locomotives + RAIL/WHEEL SOURCE P/A
12:35 pm		78.4	73.7	69.9	66.0	57.7	54.1	85.4	52.8	69.0	Traffic, LAFD SIREN
4:29 pm		77.4	74.7	70.1	65.6	57.1	52.4	87.2	51.7	70.0	Traffic on Ferry



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/14/08
Loc:	539 SHIELDS Drive N/O		
SLM:	**LD 870 System** 3	**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

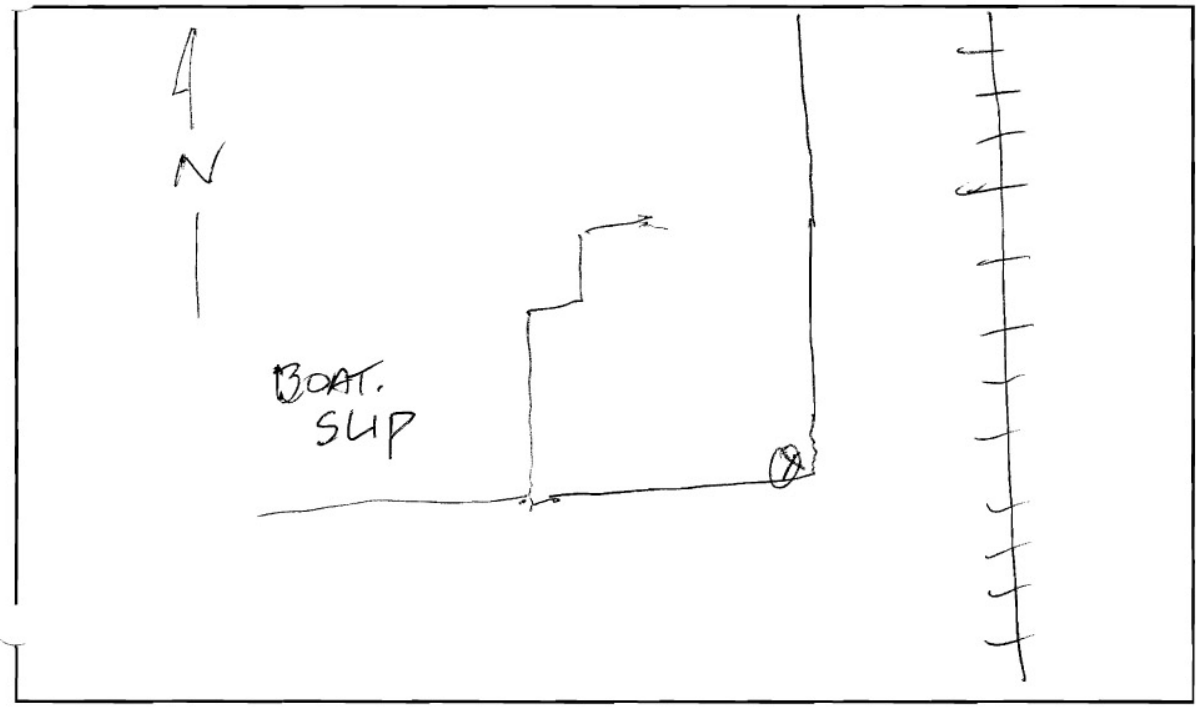
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:00pm											



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	11/18/08
Loc:	LEEWARD BAY MARINA N 20		
SLM:	**LD 870 System 4**	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

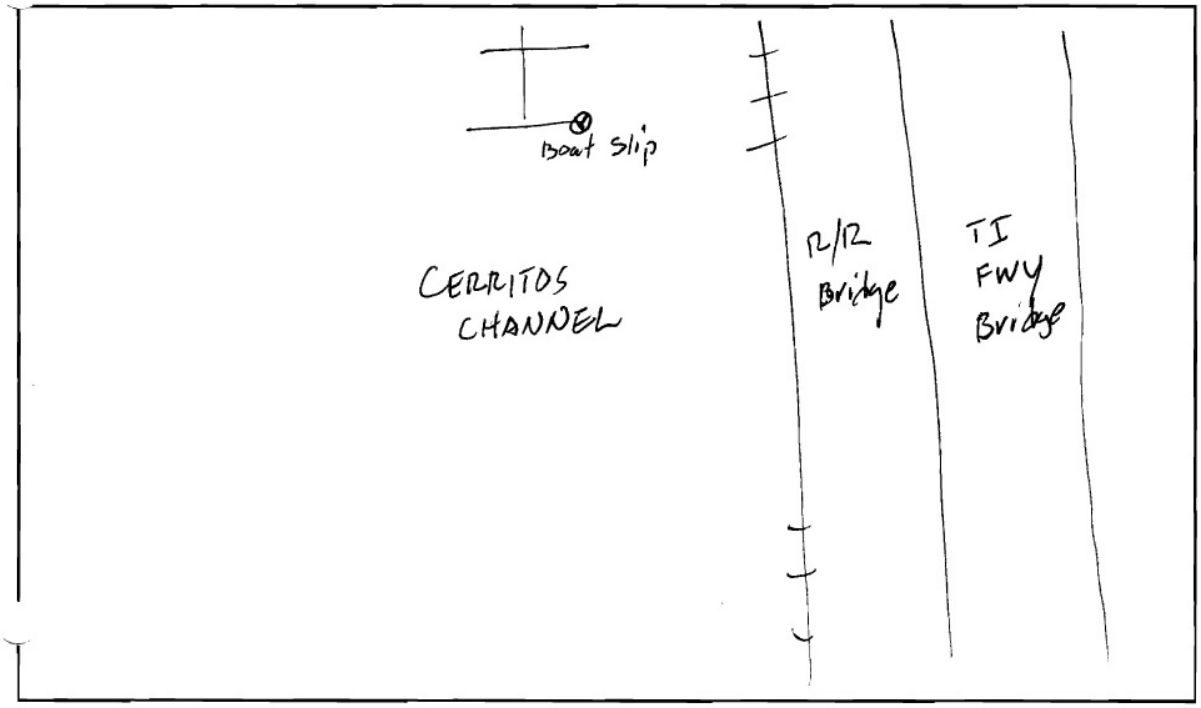
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:00pm											



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/15/08
Loc:	ISLAND YACHT MARINA		
	N21		
	24-HR		
SLM:	**LD 870 System** 4	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:00pm											



NOISE MONITORING FIELD DATA SHEET

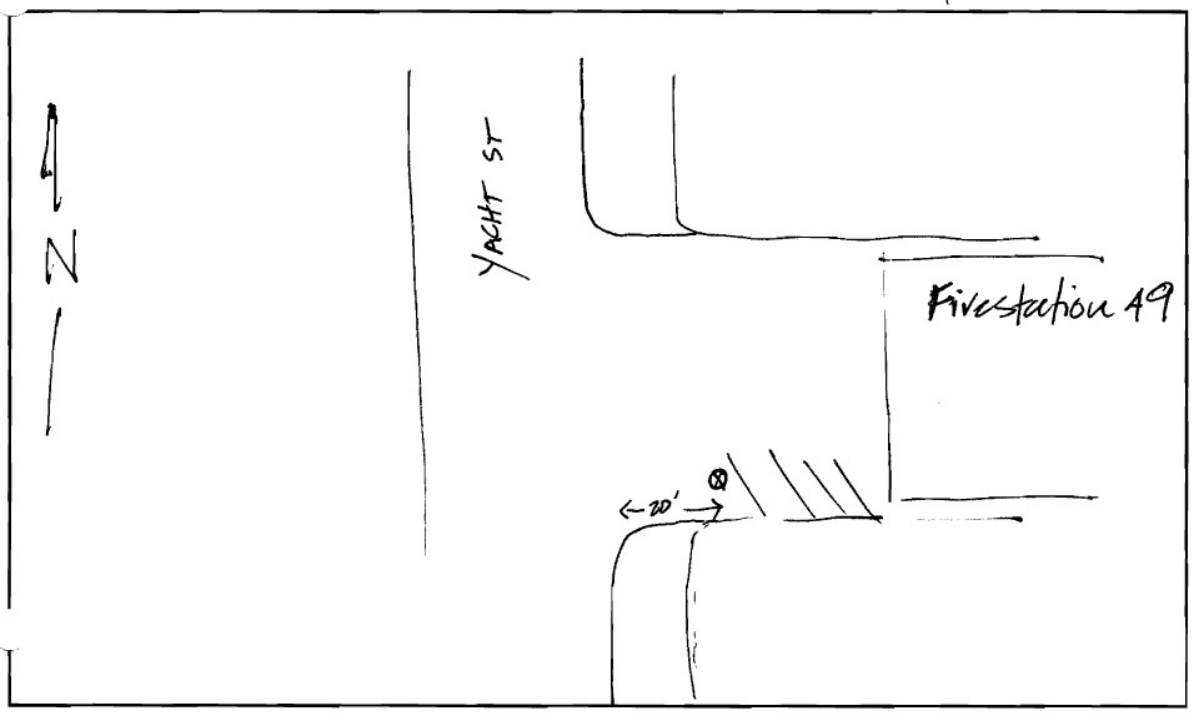
Project:	**SCIG**	**Date:**	1-11-08
Loc:	PENINSULA Rd MARINA N22		
SLM:	**LD 870 System**	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:14 pm		57.5	54.6	53.2	52.2	51.1	50.6	66.3	50.2	53.1	Port Ops, Birds Local Traffic
1:33 pm		64.4	60.1	58.2	57.4	56.2	55.5	72.5	55.1	58.7 ~~58.7~~	Port Ops, Live Aboard Activities,
4:00 pm		64.0	59.9	55.6	54.4	52.5	51.7	72.2	51.4	56.7	Port Ops, Local traffic, Live Aboard Activities, Train Horn, Airplane, birds

NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-16-08
Loc:	Fivestation 49 - YACHT ST N23		
SLM:	**LD 870 System** 4	**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

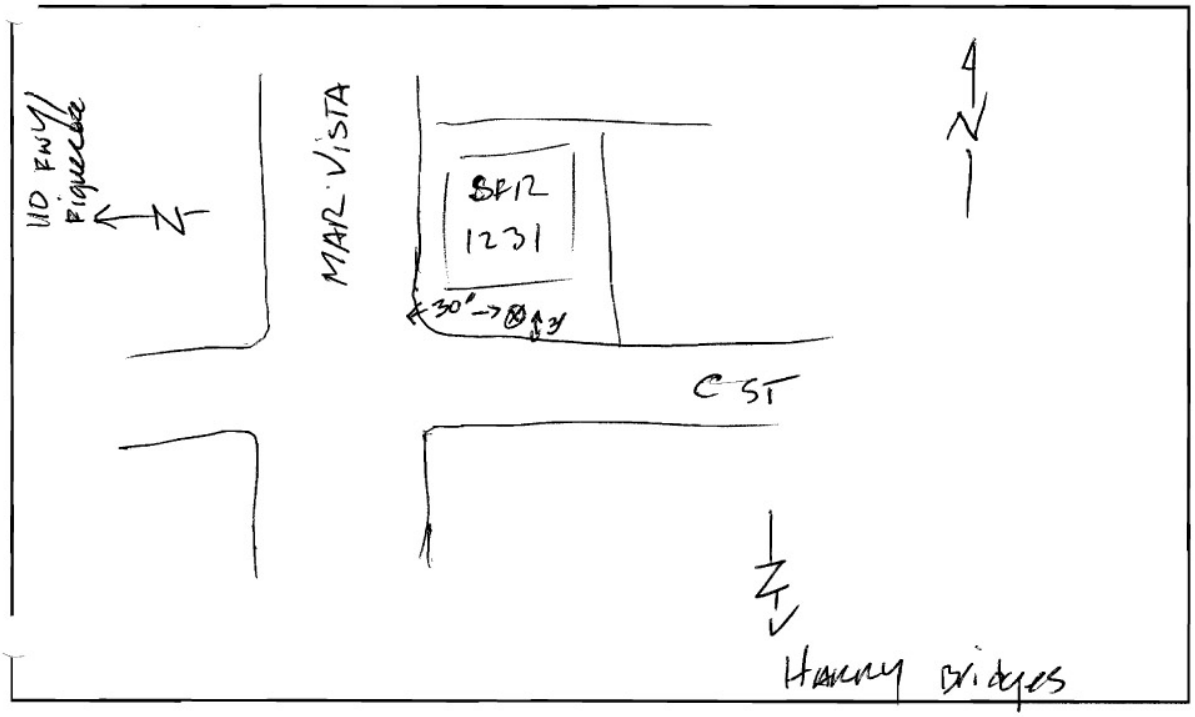
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:19 am		68.4	60.3	56.9	55.8	52.9	51.6	77.7	51.1	58.7	INDUSTRIAL Noise, Local traffic, Train Horn
12:00 pm		62.6	55.6	51.3	50.3	48.6	46.9	72.5	46.0	54.0	INDUSTRIAL Noise, Fire P/A Local traffic, Train Horn Birds
4:01 pm		57.1	55.0	53.9	53.4	52.5	52.1	59.7	51.7	53.7	INDUSTRIAL NOISE, TRAIN HORN, Birds, Traffic



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-8-08
Loc:			
	1231 C STREET		
	N24		
SLM:	**LD 870 System** 4	**SN:**	870B1195
Mic:		**SN:**	
P/A:		**SN:**	

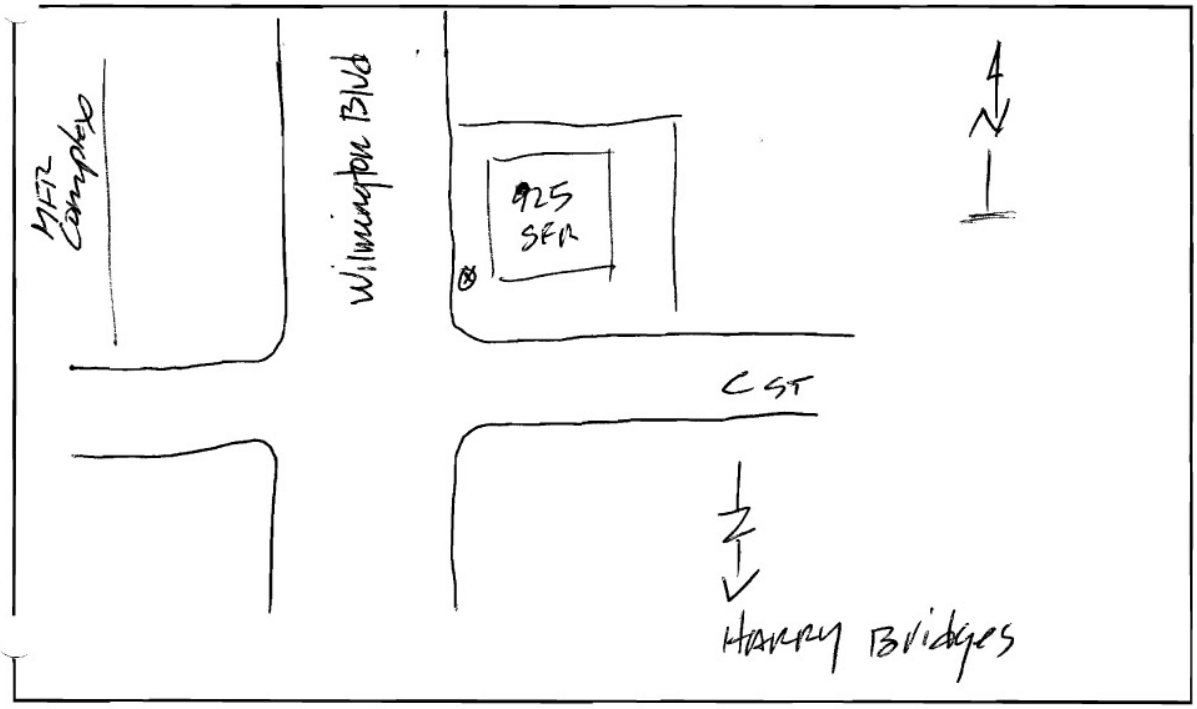
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:39 AM		64.4	61.7	59.9	58.9	56.9	54.7	68.4	54.1	59.5	TRUCK Traffic on Figueroa, Harbor Bridges, 110 Fwy, Birds, TRAPAC
12:00 PM		69.9	64.8	61.6	60.0	57.7	56.2	74.8	83.3	63.6	Truck Traffic, TRAPAC, LT Aircraft
4:10 PM		67.0	64.5	63.1	62.1	60.4	59.0	74.1	58.5	62.7	Truck Traffic, TRAPAC, Local traffic



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-8-08
Loc:			
	925 West C ST		
	N24A		
SLM:	**LD 870 System**	**SN:**	870B1195
Mic:		**SN:**	
P/A:		**SN:**	

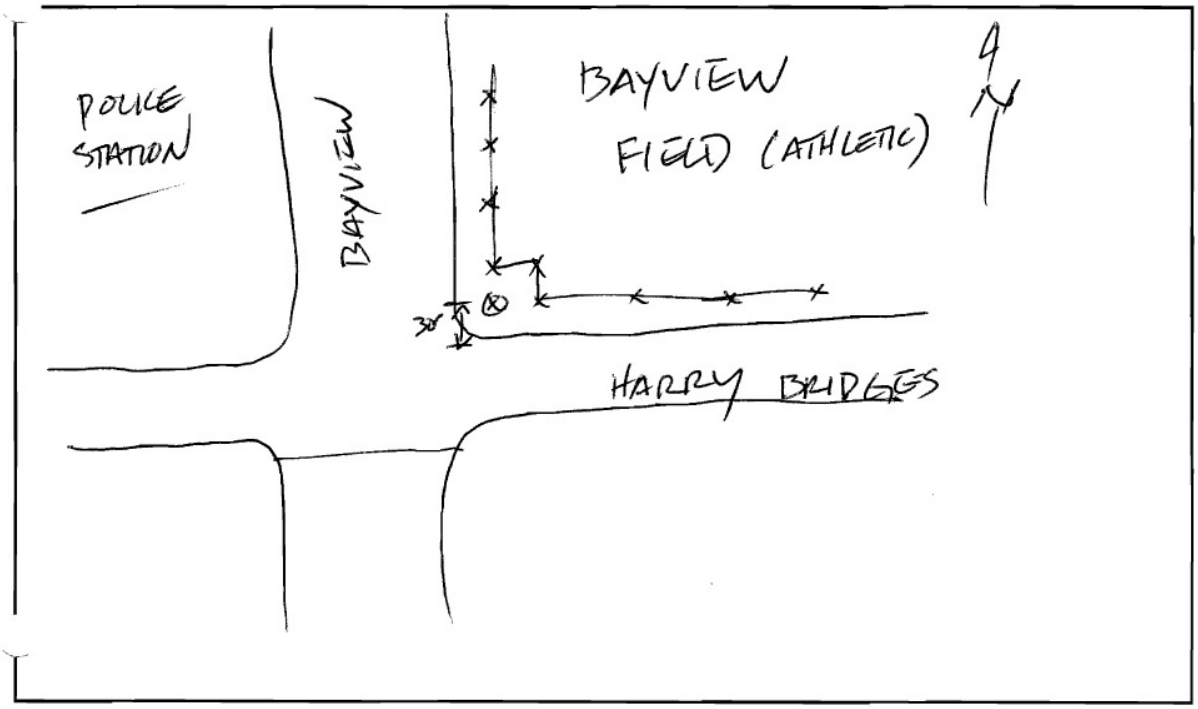
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:00am		72.5	65.9	60.6	57.6	54.2	52.0	81.7	50.7	63.3	Local Traffic, Hvy Trucks on Ht. Bridge LT Aircraft, Garbage Collection
12:25pm		73.4	68.4	62.5	58.9	55.5	54.0	78.9	53.2	64.0	Local Traffic, TRAPAC, Hvy Trks @ Ht Bridges
4:30pm		70.4	66.9	63.2	61.1	57.6	55.4	75.8	54.1	63.2	Local Traffic, TRAPAC, TRAIN



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-8-08
Loc:			
	BAYVIEW FIELD N24B		
SLM:	**LD 870 System**	**SN:**	870B1195
Mic:		**SN:**	
P/A:		**SN:**	

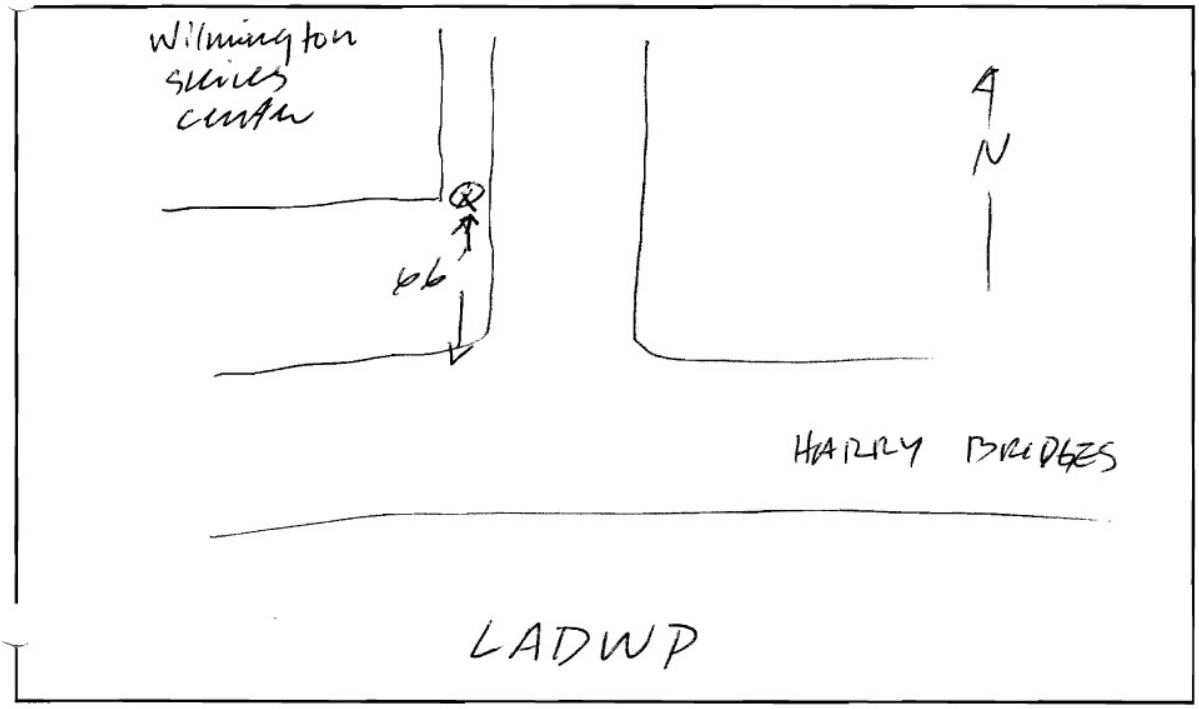
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:23am		79.1	76.2	72.4	67.7	59.4	54.0	82.5	53.1	71.4	Traffic on Hi Bridges
12:55pm		78.5	76.7	73.2	68.5	59.2	55.6	84.5	54.6	71.8	Traffic on Hi Bridges TRAPAC
4:50pm		77.6	75.4	72.2	69.7	62.4	57.6	79.4	55.5	71.2	Traffic on Hi Bridges, TRAPAC



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/14/08
Loc:	WILMINGTON SKILLS CENTER N25 217 N. ISLAND		
SLM:	**LD 870 System** 4	**SN:**	870A0338
Mic:		**SN:**	
P/A:		**SN:**	

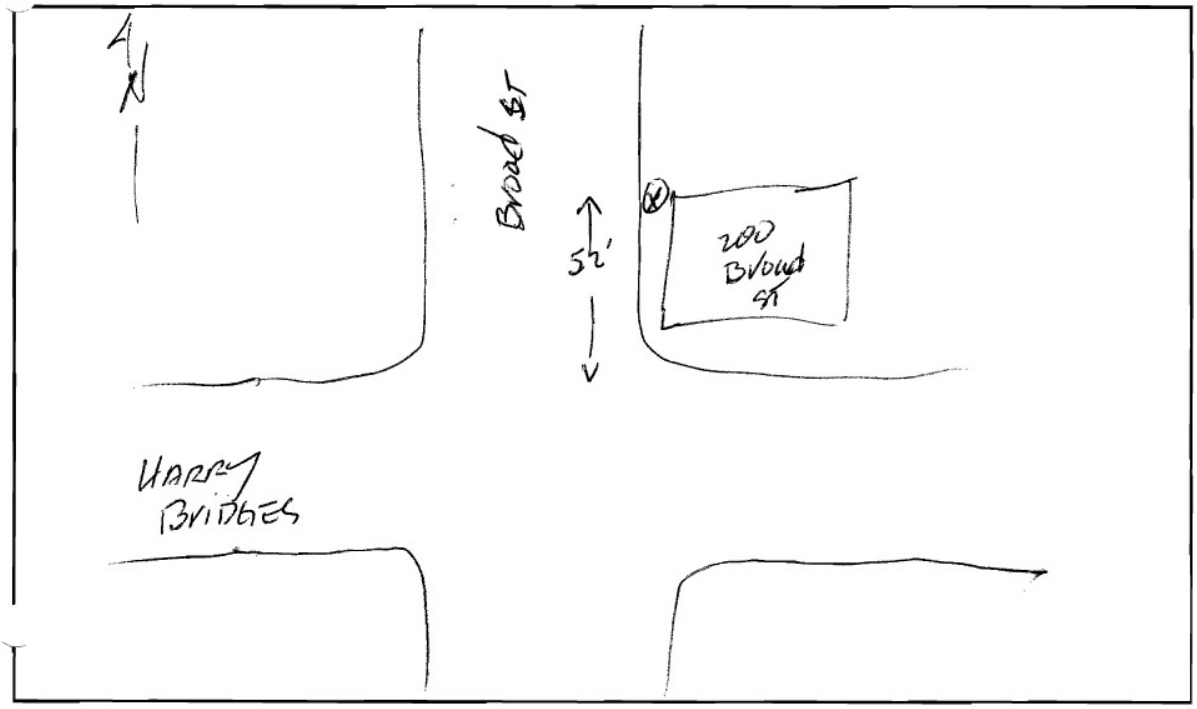
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:35 am		74.7	72.2	68.3	64.9	60.0	57.4	86.7	56.6	68.0	TRUCK TRAFFIC, SKILLS CENTER
11:35 am		76.2	72.7	68.9	65.2	59.7	57.0	91.9	56.4	71.6	TRUCK TRAFFIC
4:05 pm		76.7	73.8	70.4	67.7	63.9	58.0	86.3	57.2	70.2	TRUCK TRAFFIC



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/16/08
Loc:	200 Broad St		
	N26		
SLM:	**LD 870 System** 4	**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

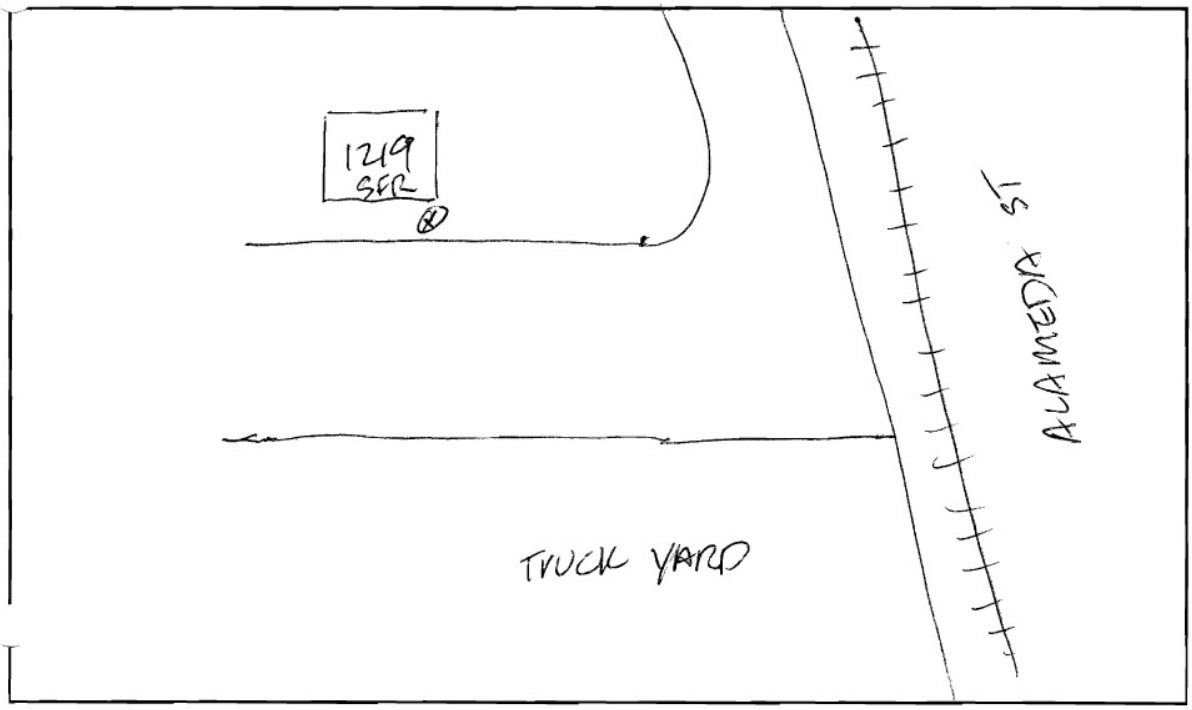
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
9:40 am		78.0	74.9	71.3	67.0	59.1	51.4	84.2	49.7	70.5	Traffic, Industrial noise,
12:19 pm		75.6	73.1	69.1	65.4	56.4	51.9	80.7	51.0	68.4	Traffic,
4:25 pm		77.4	74.3	70.4	66.9	61.1	58.4	82.3	57.0	69.9	Traffic



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1/16/08
Loc:	1249 G STREET N27		
SLM:	**LD 870 System** 4	**SN:**	870A0340
Mic:		**SN:**	
P/A:		**SN:**	

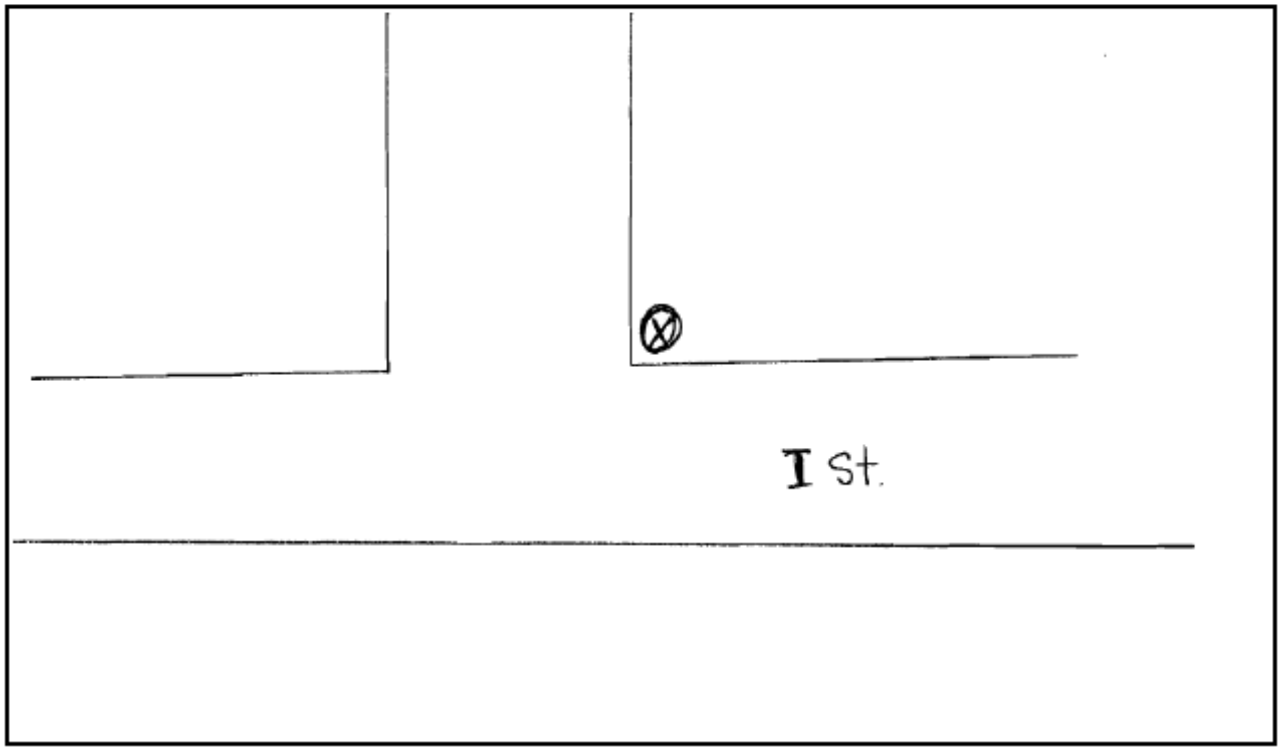
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:09 AM		73.8	66.4	59.8	57.3	52.9	50.9	83.9	50.1	63.9	TRUCKS, TRAIN HORN
12:43 pm		73.1	68.6	65.8	63.8	62.0	61.1	78.2	60.6	66.0	Trucks, Local Traffic,
4:50 pm		81.3	70.9	64.1	61.3	58.1	56.6	86.5	55.9	69.7	Local Traffic,
											Trucks, Aircraft,
											dogs barking



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/22/2012
Loc:	N-28		
SLM:	LD870	SN:	A0342
Mic:		SN:	870A0338
P/A:		SN:	

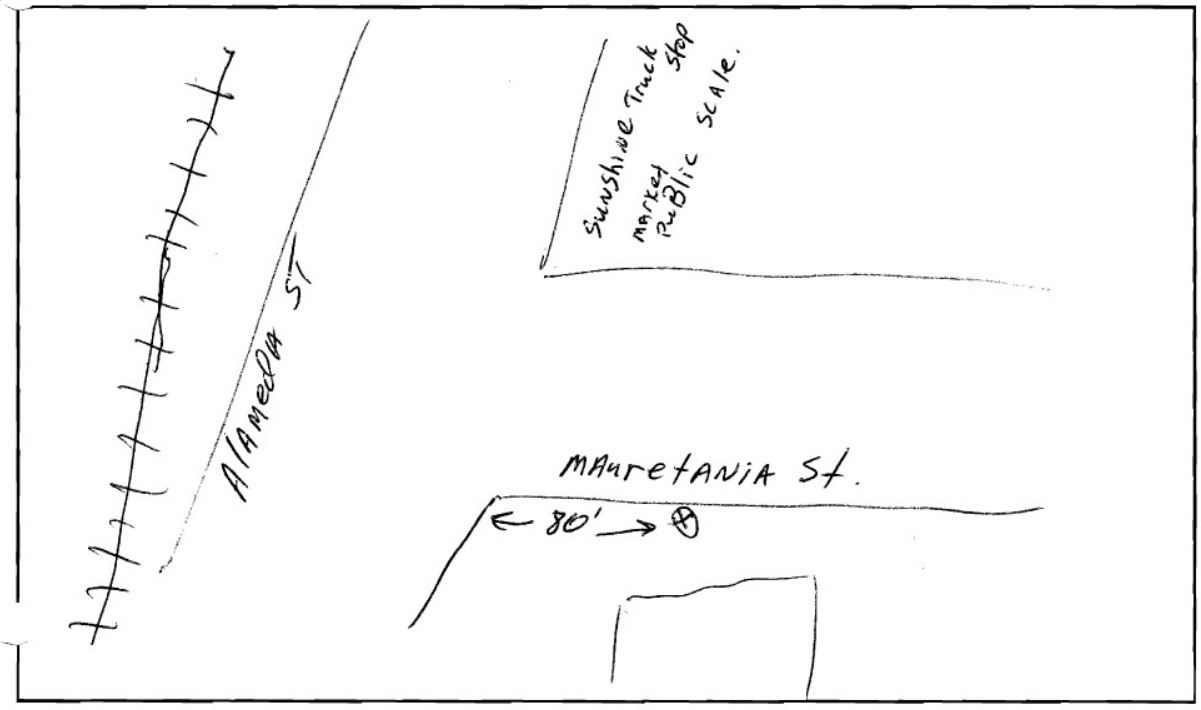
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:25 PM	12:45 PM	74.7	68.4	66.2	64.4	62.4	60.9	81.7	60.0	66.4	TRAFFIC, 2ND PLANT, PEOPLE NEARBY, TRAIN HORN
4:00 PM	4:20 PM	74.1	64.7	61.3	60.2	58.4	57.6	78.6	56.3	62.9	INDUSTRIAL PLANT, CAR
9:11 AM	9:31 AM	72.6	64.3	62.7	61.7	60.4	59.7	81.6	59.2	63.7	INDUSTRIAL, STREET TRAFFIC



NOISE MONITORING FIELD DATA SHEET

Project:	**SCIG**	**Date:**	1-14-08
Loc:	1710 MAuretANiA St. N/2		
SLM:	**LD 870 System**	**SN:**	870A0342
Mic:		**SN:**	
P/A:		**SN:**	

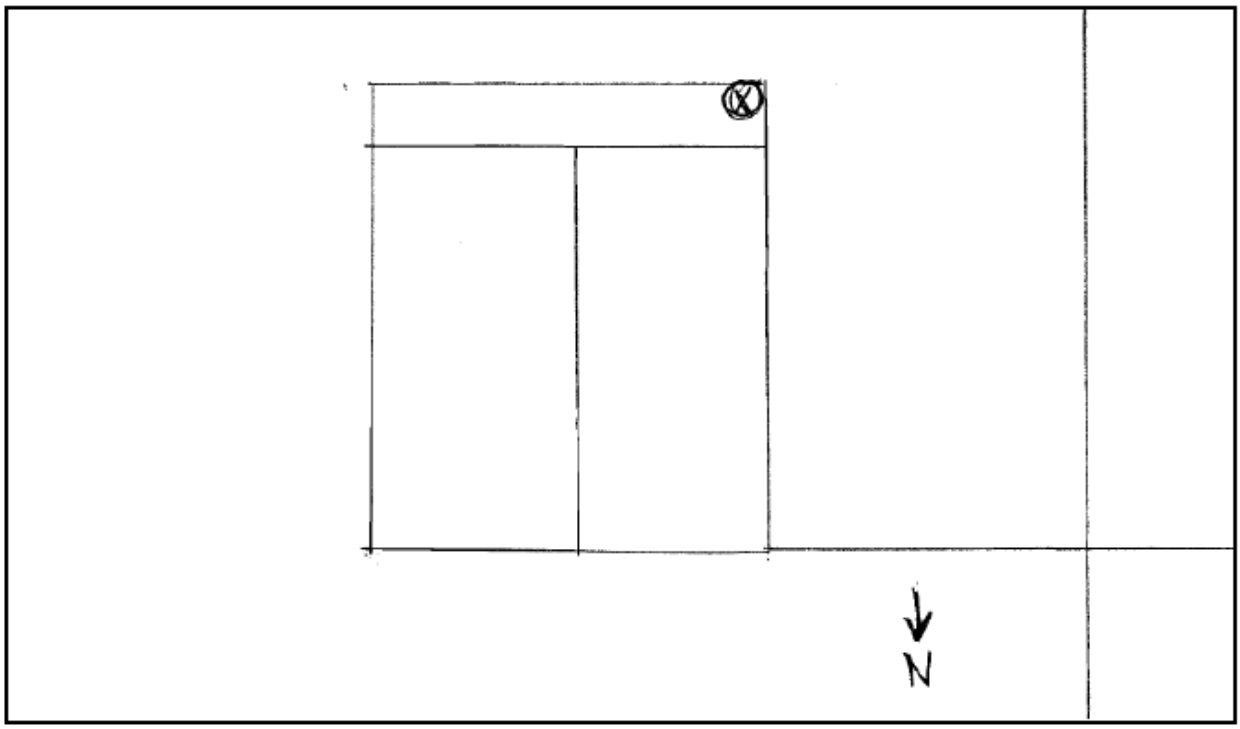
Start	Stop	L2	L8	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
10:25AM		74.7	72.8	70.0	66.8	60.9	53.9	76.9	53.0	68.6	Truck Traffic
1:10PM		75.3	72.3	68.2	64.7	57.3	54.2	81.0	52.6	67.6	Truck Traffic
5:01PM		76.8	74.2	71.2	68.5	62.7	58.9	81.8	57.8	70.4	Truck Traffic



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/19/2012
Loc:	STEPHENS MIDDLE SCHOOL		
SLM:	LD870	SN:	A0506
Mic:		SN:	
P/A:		SN:	

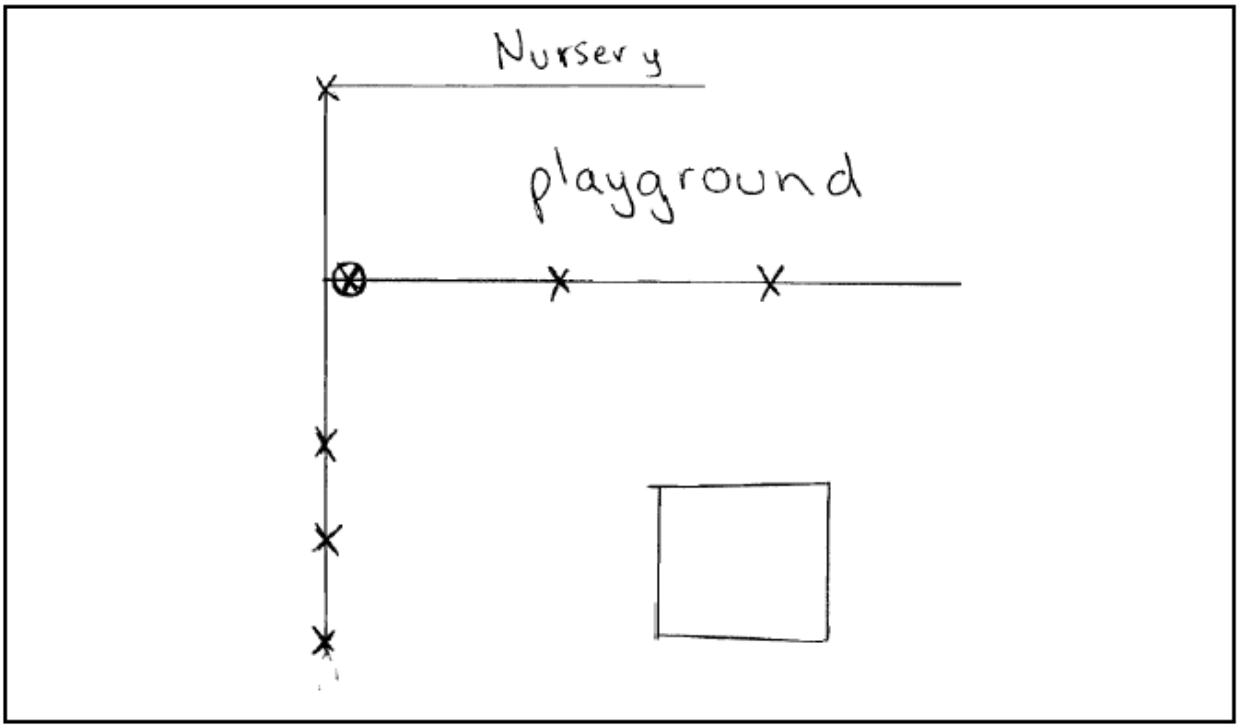
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
12:02 PM	1:17 PM										KIDS PLAYING, ICTF PICKUP,
3/19/12	3/20/12										BUS



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	3/13/2012
Loc:	WEBSTER SCHOOL		
SLM:	LD870	SN:	1195
Mic:		SN:	
P/A:		SN:	

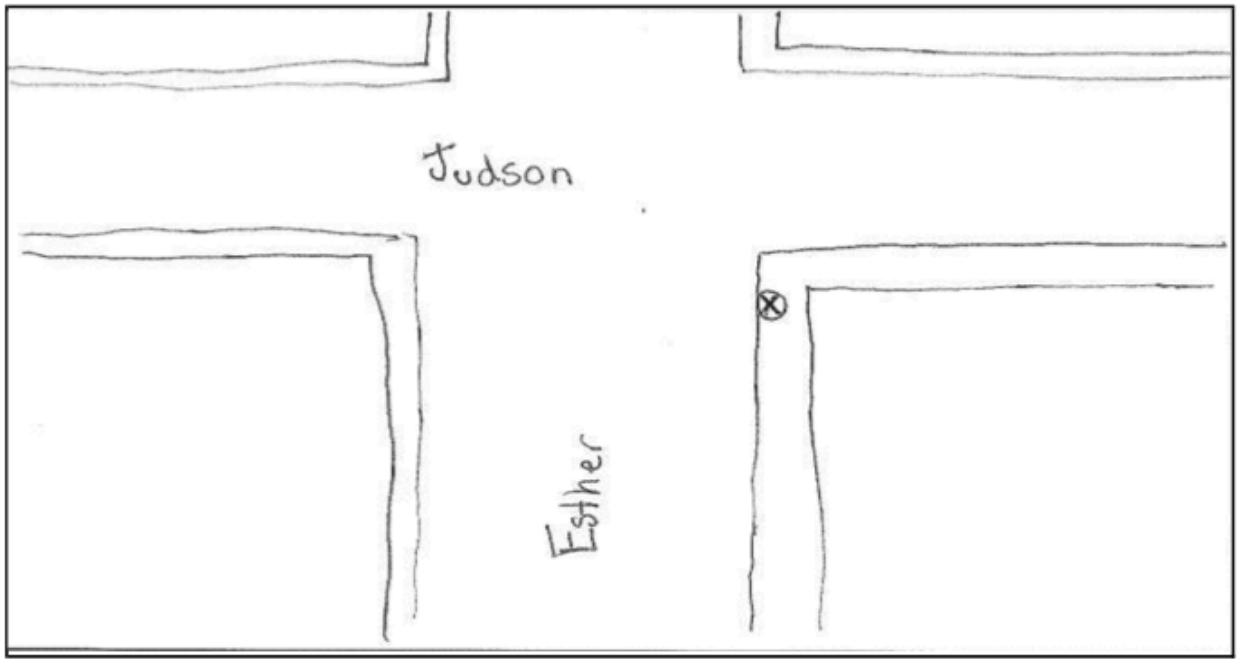
Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
1:25 PM	3:37 PM										KIDS PLAYING, CLEAR SKY
3/12/12	3/14/12										



NOISE MONITORING FIELD DATA SHEET

Project:	SCIG	Date:	7/16/12
Loc:	Mambo Sound and Recording Studio		
	N-34		
SLM:	LD870	SN:	A0338
Mic:		SN:	
P/A:		SN:	

Start	Stop	L1	L10	L25	L50	L90	L99	Lmax	Lmin	Leq	Notes
11:25 AM	1:00 PM	74.7	68.4	66.2	64.4	62.4	60.9	81.7	60.0	66.4	Trailer Traffic
7/16/12	7/17/12										



8 Meteorological Data

Long Beach Weather History

Date	1/8/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/17/2008
Mean Temperature	52 °F	53 °F	55 °F	59 °F	55 °F	58 °F	55 °F
Max Temperature	59 °F	62 °F	66 °F	75 °F	67 °F	70 °F	66 °F
Min Temperature	45 °F	44 °F	44 °F	43 °F	42 °F	45 °F	44 °F
Dew Point	44 °F	45 °F	45 °F	30 °F	40 °F	38 °F	17 °F
Average Humidity	72	74	71	39	57	53	40
Maximum Humidity	86	93	90	66	90	93	71
Minimum Humidity	57	55	52	12	24	12	9
Precipitation	0.00 in	0.00 in	0.00 in	0.00 in	0.00 in	0.00 in	0.00 in
Sea Level Pressure	30.18 in	30.12 in	30.05 in	30.20 in	30.06 in	29.97 in	30.08 in
Wind Speed	2 mph (WSW)	2 mph (W)	2 mph (S)	4 mph (NW)	2 mph (SE)	4 mph (E)	6 mph (N)
Max Wind Speed	8 mph	8 mph	9 mph	14 mph	9 mph	20 mph	16 mph
Max Gust Speed	10 mph	12 mph	12 mph	15 mph	13 mph	79 mph	22 mph
Events						Fog	

Date	1/18/2008	1/22/2008	2/11/2008	2/12/2008	2/13/2008	2/14/2008	2/15/2008
Mean Temperature	52 °F	54 °F	58 °F	63 °F	52 °F	53 °F	52 °F
Max Temperature	62 °F	59 °F	70 °F	80 °F	55 °F	60 °F	63 °F
Min Temperature	42 °F	48 °F	45 °F	46 °F	48 °F	46 °F	41 °F
Dew Point	34 °F	44 °F	44 °F	46 °F	47 °F	40 °F	31 °F
Average Humidity	50	72	62	58	83	55	46
Maximum Humidity	71	86	83	93	93	83	71
Minimum Humidity	28	57	40	22	72	26	21
Precipitation	0.00 in	0.09 in	0.00 in	0.00 in	0.00 in	0.11 in	0.00 in
Sea Level Pressure	30.15 in	30.12 in	30.04 in	30.03 in	29.88 in	29.83 in	30.09 in
Wind Speed	2 mph (SW)	3 mph (ESE)	2 mph (SSE)	2 mph (NW)	4 mph (SSE)	4 mph (E)	4 mph (SW)
Max Wind Speed	9 mph	9 mph	8 mph	15 mph	12 mph	14 mph	14 mph
Max Gust Speed	13 mph	13 mph	10 mph	17 mph	15 mph	18 mph	17 mph
Events		Rain		Fog	Fog	Rain	

Date	2/19/2008	3/24/2008	3/25/2008	3/26/2008	4/27/2011	4/28/2011	3/11/2012
Mean Temperature	56 °F	67 °F	61 °F	64 °F	70 °F	68 °F	57 °F
Max Temperature	59 °F	82 °F	67 °F	73 °F	85 °F	80 °F	65 °F
Min Temperature	52 °F	52 °F	54 °F	54 °F	54 °F	56 °F	52 °F
Dew Point	46 °F	38 °F	51 °F	50 °F	44 °F	49 °F	47 °F
Average Humidity	70	44	69	64	50	55	70
Maximum Humidity	77	72	93	86	83	80	91
Minimum Humidity	62	16	45	41	16	30	49
Precipitation	Trace in	0.00 in	0.00 in	0.00 in	0.00 in	0.00 in	0.00 in
Sea Level Pressure	30.12 in	29.99 in	30.03 in	30.10 in	29.96 in	29.98 in	29.82 in
Wind Speed	3 mph (WSW)	4 mph (WNW)	4 mph (S)	5 mph (SSE)	5 mph (NW)	5 mph (WSW)	2 mph (SE)
Max Wind Speed	9 mph	16 mph	12 mph	17 mph	21 mph	18 mph	8 mph
Max Gust Speed	12 mph	18 mph	14 mph	21 mph	26 mph	25 mph	9 mph
Events	Rain	Rain					

Date	3/12/2012	3/13/2012	3/14/2012	3/15/2012	3/18/2012	3/19/2012	3/20/2012
Mean Temperature	58 °F	57 °F	58 °F	58 °F	51.3 °F	54 °F	57 °F
Max Temperature	67 °F	66 °F	71 °F	66 °F	60.1 °F	63 °F	72 °F
Min Temperature	52 °F	51 °F	49 °F	54 °F	45 °F	46 °F	45 °F
Dew Point	47°F	48 °F	49 °F	51 °F	39 °F	37 °F	39 °F
Average Humidity	68	71	73	78	65	53	55
Maximum Humidity	86	88	90	90	93	77	83
Minimum Humidity	51	50	43	60	39	34	25
Precipitation	0.00 in	0.00 in	0.00 in	0.00 in	0.25 in	0.00 in	0.00 in
Sea Level Pressure	29.81 in	29.82 in	29.81 in	29.82 in	29.82 in	29.82 in	29.81 in
Wind Speed	2 mph (SSE)	2 mph (W)	2 mph (WNW)	2 mph (WSW)	8 mph (WNW)	3 mph (W)	2 mph (NW)
Max Wind Speed	6 mph	10 mph	11 mph	7 mph	22 mph	16 mph	8 mph
Max Gust Speed	8 mph	10 mph	11 mph	8 mph	24 mph	16 mph	8 mph
Events					Rain		

Date	3/21/2012	3/22/2012	3/23/2012
Mean Temperature	62 °F	58 °F	57 °F
Max Temperature	81 °F	69 °F	67 °F
Min Temperature	47 °F	51 °F	53 °F
Dew Point	46 °F	50 °F	51 °F
Average Humidity	52	76	80
Maximum Humidity	87	96	92
Minimum Humidity	14	47	54
Precipitation	0.00 in	0.00 in	0.01 in
Sea Level Pressure	29.81 in	29.81 in	29.81 in
Wind Speed	2 mph (NW)	2 mph (SE)	2 mph (SSE)
Max Wind Speed	8 mph	7 mph	6 mph
Max Gust Speed	8 mph	8 mph	7 mph
Events			

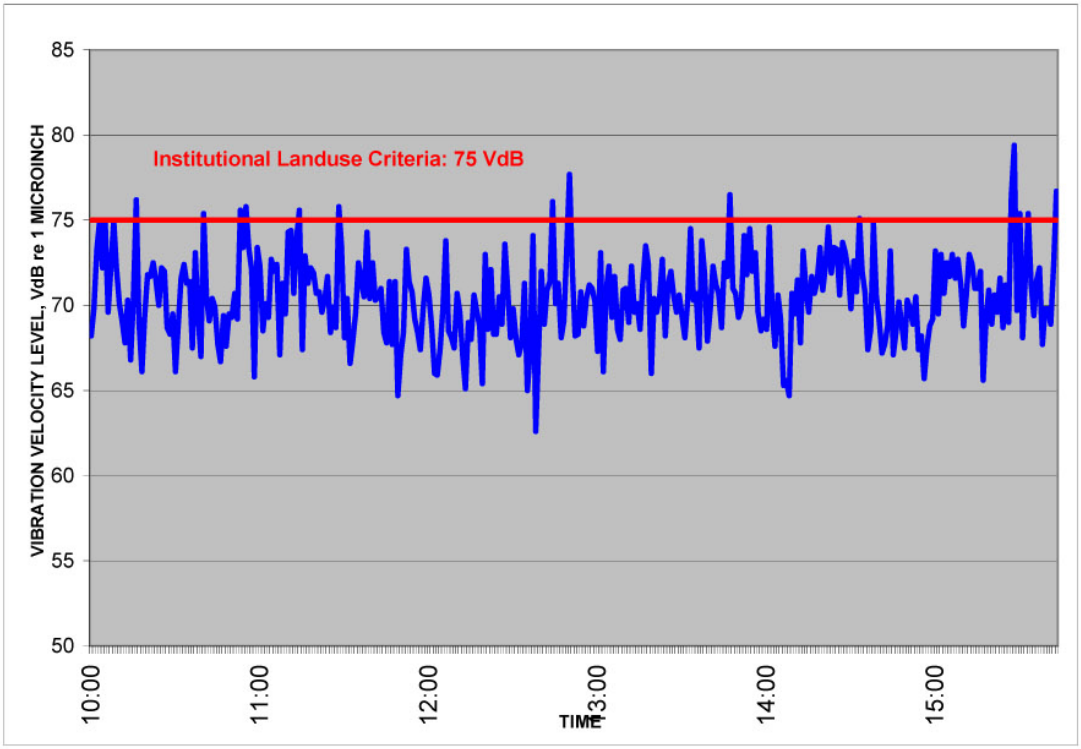
Los Angeles-San Pedro Weather History

Date	4/26/2011	4/27/2011	4/28/2011	4/29/2011
Mean Temperature	66 °F	66 °F	68 °F	65 °F
Max Temperature	73 °F	78 °F	80 °F	71 °F
Min Temperature	59 °F	55 °F	57 °F	59 °F
Dew Point	44 °F	45 °F	51 °F	48 °F
Average Humidity	43	42	51	52
Maximum Humidity	67	67	72	77
Minimum Humidity	29	27	30	35
Precipitation	0.00 in	0.00 in	0.00 in	0.00 in
Sea Level Pressure	29.95 in	29.99 in	30.00 in	29.97 in
Wind Speed	13 mph (West)	4 mph (WNW)	7 mph (West)	7 mph (West)
Max Wind Speed	17 mph	17 mph	21 mph	17 mph
Max Gust Speed	23 mph	22 mph	-	17 mph
Visibility	18 miles	12 miles	12 miles	10 miles

9 Vibration Velocity Level Plots

MEASUREMENT DATA - VIBRATION VELOCITY LEVELS

Project:	**SCIG**		
Address:	**BETHUNE ELEMENTARY SCHOOL**	**Date:**	**3/3/2008**
Location:	**CLASSROOM 101**		
Vibration Sources:	**TRAFFIC ON TERMINAL ISLAND FREEWAY, TRAINS**	**Position:**	**EAST FAÇADE SETBACK**



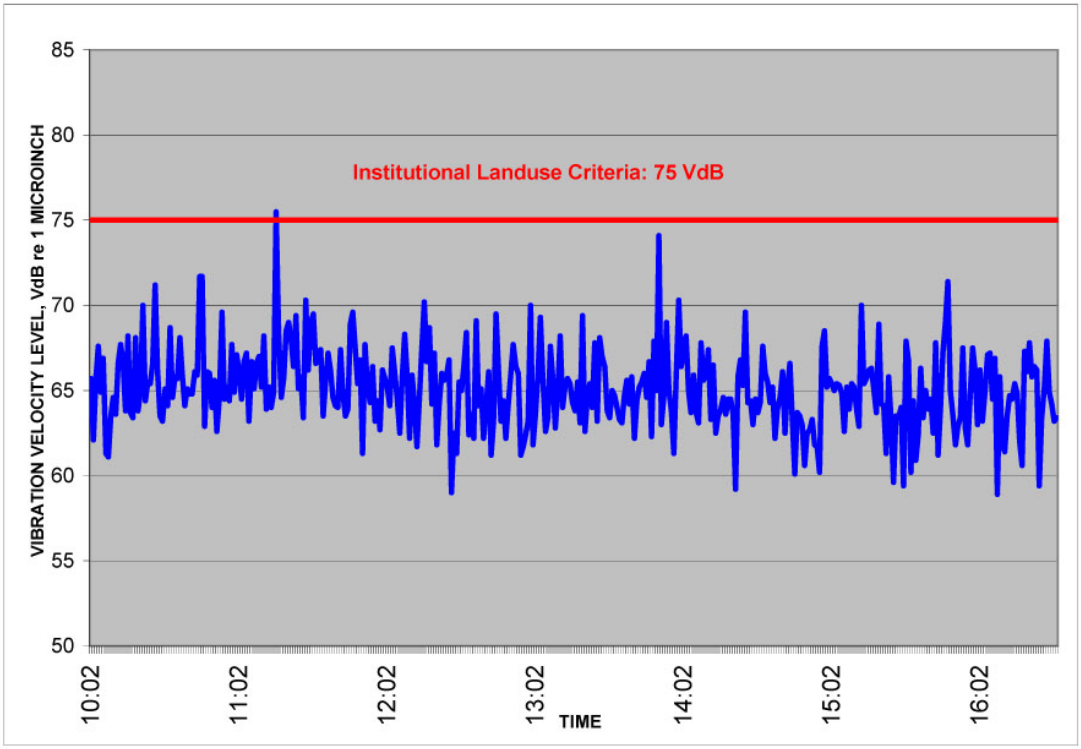
Notes:
Refer to field data sheet

DRAFT - PRELIMINARY WORK IN PROGRESS - SUBJECT TO CHANGE

Source: Acoustics Group, Inc. 2008

MEASUREMENT DATA - VIBRATION VELOCITY LEVELS

Project:	SCIG		
Address:	CABRILLO CHILD DEVELOPMENT CENTER	Date:	3/4/2008
Location:	CLASSROOM 2205		
Vibration Sources:	TRAFFIC ON TERMINAL ISLAND FREEWAY, TRAINS	Position:	EAST FAÇADE SETBACK



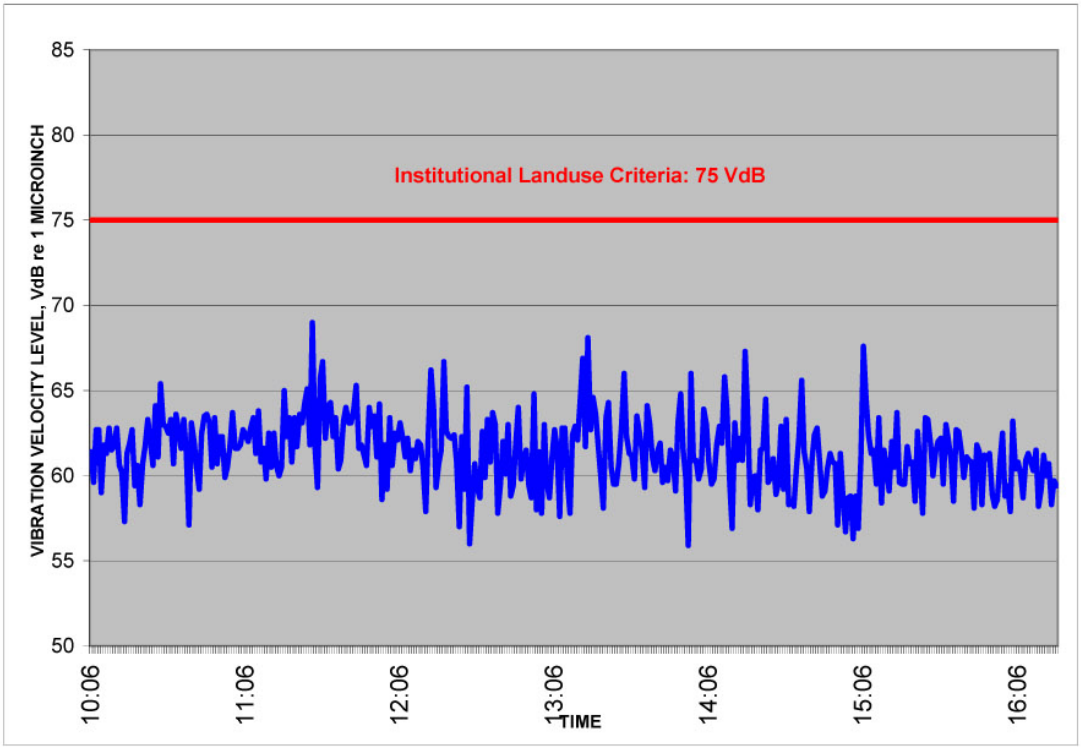
Notes:
Refer to field data sheet

DRAFT - PRELIMINARY WORK IN PROGRESS - SUBJECT TO CHANGE

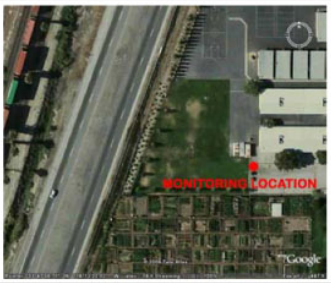
Source: Acoustics Group, Inc. 2008

MEASUREMENT DATA - VIBRATION VELOCITY LEVELS

Project:	SCIG		
Address:	HUDSON SCHOOL	Date:	3/6/2008
Location:	ADJACENT TO CLASSROOM 52		
Vibration Sources:	TRAFFIC ON TERMINAL ISLAND FREEWAY, TRAINS	Position:	EAST FAÇADE SETBACK



Notes:
Refer to field data sheet

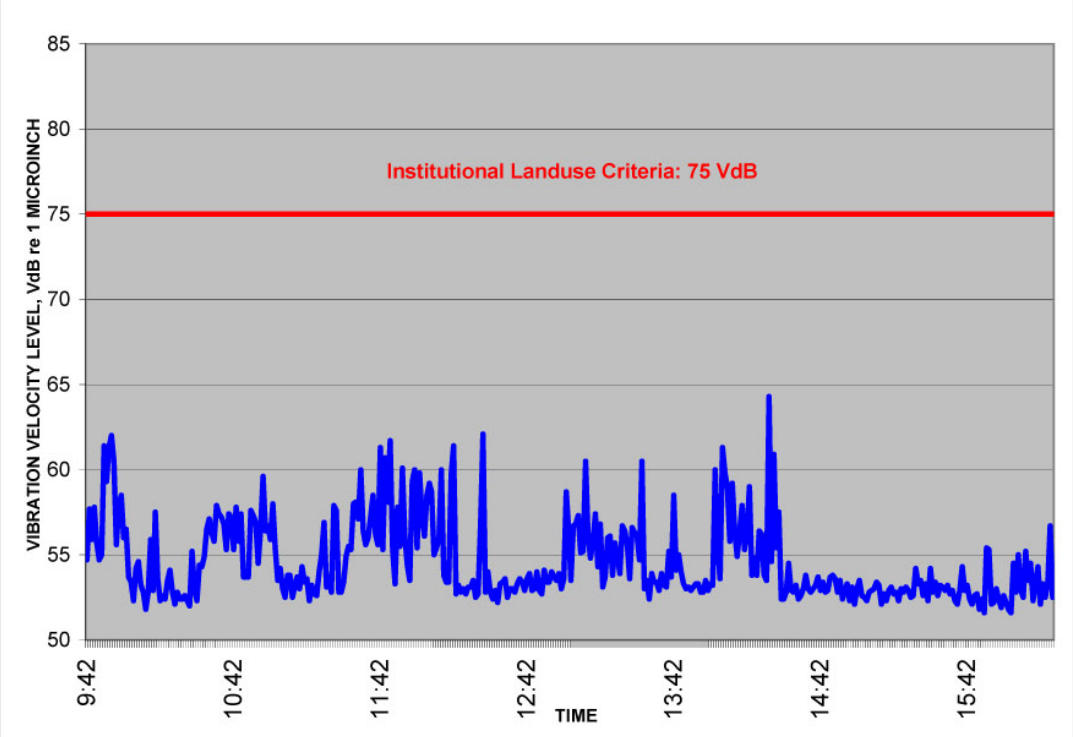


DRAFT - PRELIMINARY WORK IN PROGRESS - SUBJECT TO CHANGE

Source: Acoustics Group, Inc. 2008

MEASUREMENT DATA - VIBRATION VELOCITY LEVELS

Project:	SCIG		
Address:	STEPHENS MIDDLE SCHOOL	Date:	3/7/2008
Location:	ADJACENT TO CLASSROOM PC2		
Vibration Sources:	LOCAL ACTIVITIES, TRAINS ON THE SAN PEDRO BRANCH	Position:	EAST FAÇADE SETBACK



Notes:
Refer to field data sheet

DRAFT - PRELIMINARY WORK IN PROGRESS - SUBJECT TO CHANGE

Source: Acoustics Group, Inc. 2008

10 Traffic Noise Calculator Input and Output Data

FHWA TRAFFIC NOISE CALCULATOR

SCIG 2010 BASELINE CONDITIONS TRAFFIC

ROADWAY	Segment	Peak Hour Volume	Vehicle Distribution %Auto	%MT	%HT	Vehicle Speed mph	Receiver Distance CL, ft	Grade % NL	FL	CNEL Correction	PREDICTED TRAFFIC NOISE LEVEL, dBA Leq @ Rec.	CNEL @ Rec.	DISTANCE TO CNEL CONTOURS 80	75	70	65	60
1ST ST	e/o East RD	571	10	0	90	25	100	0	0	1	73.6	74.6	32	92	261	545	1081
ACCESS RD	e/o Ferry St	604	56	0	44	30	100	0	0	1	66.8	67.8	8	22	63	164	358
ALAMEDA ST	n/o Anaheim St	1837	76	1	23	40	100	0	0	1	70.9	71.9	18	53	150	341	702
ALAMEDA ST	w/o Eubank Ave	2037	66	1	33	40	100	0	0	1	72.6	73.6	26	74	211	456	917
ALAMEDA ST	s/o PCH	2051	64	1	35	40	100	0	0	1	72.8	73.8	27	78	222	476	954
ALAMEDA ST	s/o Anaheim St	3441	77	1	22	40	100	0	0	1	73.5	74.5	32	90	257	539	1069
E 223RD ST	w/o I-405 Off ramps	3857	87	1	12	35	100	0	0	1	71.1	72.1	19	54	155	351	720
E ANAHEIM ST	between Avalon Blvd and Broad Ave	2214	98	1	1	35	100	0	0	1	64.5	65.5	5	14	39	110	247
E ANAHEIM ST	between Eubank Ave and Sanford St	2384	98	1	1	35	100	0	0	1	64.8	65.8	5	15	42	115	258
E ANAHEIM ST	between Sanford Ave and Sanford St	2443	98	1	1	35	100	0	0	1	64.9	65.9	5	15	43	118	263
E ANAHEIM ST	between Anaheim and Henry Ford	3980	89	1	10	35	100	0	0	1	70.7	71.7	18	50	143	328	676
E ANAHEIM ST	e/o Henry Ford Ave	3617	91	1	8	45	100	0	0	1	72.0	73.0	23	65	186	411	832
E ANAHEIM ST	w/o E I St	3082	92	1	7	45	100	0	0	1	71.2	72.2	19	55	158	357	732
E ANAHEIM ST	e/o Sanford Ave	2375	98	1	1	45	100	0	0	1	67.9	68.9	10	28	79	198	424
E ANAHEIM ST	w/o Anaheim Way	3617	91	1	8	45	100	0	0	1	72.0	73.0	23	65	186	411	832
E ANAHEIM ST	between Henry Ford Ave and Terminal Isla	3617	91	1	8	45	100	0	0	1	72.0	73.0	23	65	186	411	832
E HARRY BRIDGES BLVD	e/o Avalon Blvd	1862	68	1	31	35	100	0	0	1	71.1	72.1	19	55	155	352	722
E I ST	between Terminal Island Fwy and Anaheim	966	43	0	57	35	100	0	0	1	70.5	71.5	17	48	136	315	652
E OPP ST	w/o Farragut Ave	21	100	0	0	35	100	0	0	1	43.4	44.4	0	0	0	3	8
E SEPULVEDA BLVD	e/o Alameda St	3749	95	2	4	40	100	0	0	1	69.7	70.7	14	41	117	277	578
E SEPULVEDA BLVD	w/o Dolores St	3312	97	1	2	40	100	0	0	1	68.3	69.3	11	31	87	216	459
E SEPULVEDA BLVD	w/o Wilmington Ave	3758	96	1	2	40	100	0	0	1	69.1	70.1	13	36	102	247	521
E SEPULVEDA BLVD	e/o Wilmington Ave	2740	96	1	3	40	100	0	0	1	68.0	69.0	10	28	81	202	432
E SEPULVEDA BLVD	e/o Dolores St	2966	97	1	2	40	100	0	0	1	67.9	68.9	10	28	80	200	429
E SEPULVEDA BLVD	w/o Avalon Blvd	2888	97	1	2	40	100	0	0	1	67.9	68.9	10	28	79	199	426
EAST RD	n/o 1st St	279	34	0	66	26	100	0	0	1	64.9	65.9	5	15	42	117	260
EAST RD	s/o 1st St	221	48	0	52	37	100	0	0	1	64.1	65.1	4	13	36	102	230
FARRAGUT AVE	Between Terminal Island Fwy SB ramps and	762	50	0	50	35	100	0	0	1	69.0	70.0	12	35	99	241	510
FARRAGUT AVE	s/o E OPP St	21	100	0	0	35	100	0	0	1	43.4	44.4	0	0	0	3	8
FERRY ST	between Seaside Ave and Access Rd	696	56	0	44	25	100	0	0	1	67.1	68.1	8	24	68	174	377
FERRY ST	between Terminal Way and Pitchard St	1107	49	0	51	25	100	0	0	1	69.7	70.7	14	41	117	277	578
FIGUEROA ST	n/o Anaheim St	766	86	1	13	35	100	0	0	1	64.3	65.3	5	13	38	106	239
FIGUEROA ST	n/o PCH	1945	97	1	2	35	100	0	0	1	64.8	65.8	5	15	41	115	257
HARBOR FWY	n/o PCH off Ramp	11518	89	1	10	65	100	0	0	1	82.0	83.0	188	536	1528	2435	4295
HARBOR FWY	s/o Sepulveda Blvd	11024	88	1	11	65	100	0	0	1	81.9	82.9	182	518	1476	2365	4181
HARBOR FWY	n/o Sepulveda Blvd	11733	89	1	10	65	100	0	0	1	82.1	83.1	189	540	1537	2447	4315
HARBOR FWY	n/o 223rd St	12845	90	1	9	65	100	0	0	1	82.3	83.3	199	568	1616	2554	4488
HARBOR FWY	n/o 220th St	13494	90	1	9	65	100	0	0	1	82.4	83.4	206	586	1668	2623	4599
HARBOR FWY	n/o Carson St	14533	90	1	8	65	100	0	0	1	82.7	83.7	216	614	1749	2731	4774
HARBOR FWY	n/o Redondo Beach Blvd	18024	94	1	5	65	100	0	0	1	82.7	83.7	219	624	1777	2767	4831
HARBOR FWY	between 135 th St and Rosecrans Ave	17858	94	1	5	65	100	0	0	1	82.7	83.7	216	615	1752	2734	4779
HARBOR FWY	n/o 135th St	16754	94	2	5	65	100	0	0	1	82.4	83.4	205	585	1666	2620	4595
HARBOR FWY	n/o Alondra	17328	94	1	5	65	100	0	0	1	82.6	83.6	213	606	1727	2701	4725
HARBOR FWY	between Del Amo Blvd and Torrance Blv	14193	90	1	9	65	100	0	0	1	82.6	83.6	212	604	1719	2691	4710
HARBOR FWY	between 168th and Alondra	18055	94	1	5	65	100	0	0	1	82.8	83.8	222	632	1801	2799	4883
HARBOR FWY	n/o Del Amo Blvd	15631	91	1	8	65	100	0	0	1	82.9	83.9	226	644	1835	2843	4954
HARBOR FWY	n/o I-405	13025	91	1	7	65	100	0	0	1	82.0	83.0	186	531	1512	2414	4261
HARBOR FWY	s/o I-405	13006	91	1	7	65	100	0	0	1	82.0	83.0	186	531	1511	2413	4258
HARBOR FWY	s/o 182nd St	14903	92	1	6	65	100	0	0	1	82.3	83.3	201	573	1632	2575	4521
HARBOR FWY	between Artesia Blvd and 168th	15306	93	1	5	65	100	0	0	1	82.1	83.1	193	551	1568	2489	4383
HARBOR FWY	s/o SR-91	15416	93	1	5	65	100	0	0	1	82.2	83.2	195	555	1581	2507	4412
HARBOR FWY	s/o PCH off Ramp	9627	87	1	13	65	100	0	0	1	81.6	82.6	174	495	1409	2274	4032
HARBOR FWY	n/o El Segundo Blvd	16732	93	2	5	65	100	0	0	1	82.5	83.5	209	596	1696	2661	4661
HARBOR FWY	s/o El Segundo Blvd	16719	94	2	5	65	100	0	0	1	82.4	83.4	205	585	1665	2619	4593
HARBOR FWY	n/o Anaheim St	10891	89	1	11	65	100	0	0	1	81.8	82.8	180	512	1457	2340	4140

HARBOR FWY	s/o 120th St	16566	94	2	5	65	100	0	0	1	82.4	83.4	206	586	1669	2625	4602
HARBOR FWY	n/o 120th St	14322	93	2	5	65	100	0	0	1	81.9	82.9	183	521	1484	2376	4199
HARBOR FWY	n/o I-105	16470	94	2	5	65	100	0	0	1	82.4	83.4	204	581	1656	2607	4573
HARBOR FWY	n/o 108th St	19347	94	2	4	65	100	0	0	1	83.0	84.0	233	663	1887	2911	5064
HARBOR FWY	s/o 223rd St	13004	90	1	9	65	100	0	0	1	82.4	83.4	202	575	1638	2583	4535
HARBOR FWY	s/o 190th St	13515	91	1	8	65	100	0	0	1	82.3	83.3	199	567	1616	2554	4487
HARBOR PLZ	between Pier F Ave and Pico Ave	461	28	0	72	40	100	0	0	1	69.0	70.0	12	35	100	243	513
HARBOR SCENIC DR	w/o Goldenshore St	954	40	0	60	40	100	0	0	1	71.5	72.5	21	59	168	377	769
HARBOR SCENIC DR	s/o Shoreline Dr	1070	34	0	66	40	100	0	0	1	72.3	73.3	25	71	201	437	882
HARBOR SCENIC DR	n/o Shoreline Dr	1258	33	0	67	40	100	0	0	1	73.1	74.1	29	83	236	502	1002
HARBOR SCENIC WAY	e/o Queens Hwy	360	17	0	83	40	100	0	0	1	68.5	69.5	11	32	91	224	475
HARBOR SCENIC WAY	e/o Port Access Rd	398	16	0	84	40	100	0	0	1	69.0	70.0	12	35	100	243	513
HARBOR SCENIC WAY	w/o Port Access Rd	398	16	0	84	40	100	0	0	1	69.0	70.0	12	35	100	243	513
JOHN S GIBSON BLVD	n/o I-110 Ramps	1670	75	0	25	35	100	0	0	1	69.7	70.7	14	41	117	276	577
LONG BEACH FWY	n/o Imperial Hwy	17708	83	1	16	65	100	0	0	1	84.8	85.8	339	965	2749	4003	6792
LONG BEACH FWY	s/o Imperial Hwy	19361	84	1	15	65	100	0	0	1	85.1	86.1	355	1012	2883	4168	7049
LONG BEACH FWY	n/o I-105	16780	82	1	16	65	100	0	0	1	84.7	85.7	330	940	2678	3916	6655
LONG BEACH FWY	s/o I-105	16218	81	1	17	65	100	0	0	1	84.7	85.7	328	935	2664	3898	6628
LONG BEACH FWY	n/o Rosecrans Ave	16526	82	1	17	65	100	0	0	1	84.7	85.7	327	933	2656	3888	6613
LONG BEACH FWY	s/o Rosecrans Ave	23636	84	1	14	65	100	0	0	1	85.9	86.9	422	1202	3424	4820	8061
LONG BEACH FWY	n/o Alondra	23327	84	1	15	65	100	0	0	1	85.9	86.9	420	1196	3405	4798	8026
LONG BEACH FWY	between Alondra and Rosecrans	23630	84	1	14	65	100	0	0	1	85.9	86.9	423	1204	3428	4825	8069
LONG BEACH FWY	s/o Alondra	23197	84	1	15	65	100	0	0	1	85.8	86.8	419	1194	3400	4792	8017
LONG BEACH FWY	n/o SR-91	18539	81	1	18	65	100	0	0	1	85.3	86.3	374	1065	3033	4350	7333
LONG BEACH FWY	n/o Artesia Blvd	13730	78	1	21	65	100	0	0	1	84.5	85.5	316	901	2566	3776	6436
LONG BEACH FWY	s/o Artesia Blvd	16844	78	1	21	65	100	0	0	1	85.3	86.3	374	1066	3037	4355	7340
LONG BEACH FWY	n/o Long Beach Blvd	18018	79	1	20	65	100	0	0	1	85.5	86.5	389	1107	3153	4496	7559
LONG BEACH FWY	s/o Long Beach Blvd	16407	77	1	22	65	100	0	0	1	85.3	86.3	376	1071	3051	4372	7367
LONG BEACH FWY	n/o Del Amo Blvd	17216	78	1	21	65	100	0	0	1	85.4	86.4	384	1094	3116	4451	7489
LONG BEACH FWY	s/o Del Amo Blvd Off ramp	16776	78	1	21	65	100	0	0	1	85.4	86.4	378	1078	3069	4394	7401
LONG BEACH FWY	s/o Del Amo Blvd	17641	79	1	20	65	100	0	0	1	85.5	86.5	387	1102	3139	4478	7532
LONG BEACH FWY	n/o Wardlow Rd	10362	71	1	28	65	100	0	0	1	84.0	85.0	287	817	2326	3475	5962
LONG BEACH FWY	s/o Wardlow Rd	13114	76	1	24	65	100	0	0	1	84.6	85.6	321	914	2603	3823	6510
LONG BEACH FWY	n/o Willow St	12420	81	1	18	65	100	0	0	1	83.6	84.6	264	751	2139	3237	5584
LONG BEACH FWY	s/o Willow St	12314	75	1	25	65	100	0	0	1	84.4	85.4	310	884	2518	3717	6343
LONG BEACH FWY	between off/of namps at Willow St	12351	74	1	25	65	100	0	0	1	84.4	85.4	313	890	2536	3739	6377
LONG BEACH FWY	s/o Anaheim St	10709	78	1	22	65	100	0	0	1	83.5	84.5	254	723	2060	3135	5422
LONG BEACH FWY	s/o PCH	10709	78	1	22	65	100	0	0	1	83.5	84.5	254	723	2060	3135	5422
LONG BEACH FWY	n/o Anahiem St	11037	77	1	23	65	100	0	0	1	83.7	84.7	268	764	2177	3285	5661
LONG BEACH FWY	s/o Firestone Blvd	19524	84	1	14	65	100	0	0	1	85.0	86.0	354	1009	2875	4158	7033
LONG BEACH FWY	s/o 9th St	2459	31	0	69	65	100	0	0	1	80.8	81.8	147	419	1194	1976	3543
LONG BEACH FWY	n/o Long Beach Blvd	16709	78	1	21	65	100	0	0	1	85.3	86.3	378	1075	3063	4386	7390
LONG BEACH FWY	n/o 9th St	2989	29	0	71	65	100	0	0	1	81.8	82.8	180	513	1462	2346	4149
LONG BEACH FWY	n/o 10th St	6222	67	1	33	65	100	0	0	1	82.3	83.3	200	570	1623	2562	4501
LONG BEACH FWY	s/o On ramp at Del Amo Blvd	17148	78	1	21	65	100	0	0	1	85.4	86.4	382	1089	3100	4432	7460
LONG BEACH FWY	s/o Willow St	11593	73	1	26	65	100	0	0	1	84.3	85.3	306	871	2481	3670	6270
LONG BEACH FWY	n/o Anaheim St	10893	76	1	23	65	100	0	0	1	83.7	84.7	266	758	2158	3261	5623
N HENRY FORD AVE	n/o Terminal Island fwy	800	43	0	57	40	100	0	0	1	70.5	71.5	17	48	137	317	655
N HENRY FORD AVE	n/o Anaheim St	345	9	0	91	40	100	0	0	1	68.7	69.7	12	33	94	231	489
N SEASIDE AVE	e/o Navy Way	4995	74	1	26	55	100	0	0	1	78.6	79.6	93	264	753	1338	2472
N SEASIDE AVE	e/o Access Rd ramp	2219	78	1	22	55	100	0	0	1	74.6	75.6	40	114	325	657	1283
N SEASIDE AVE	w/o Navy Way	4785	78	1	21	55	100	0	0	1	77.9	78.9	80	227	648	1178	2199
N SEASIDE AVE	e/o Ferry St	696	56	0	44	55	100	0	0	1	71.8	72.8	22	64	181	401	814
N SEASIDE AVE	e/o Navy Way ramp	5368	68	1	31	55	100	0	0	1	79.6	80.6	112	320	910	1571	2868
N SEASIDE AVE	e/o Navy Way	4995	74	1	26	55	100	0	0	1	78.6	79.6	93	264	753	1338	2472
NAVY WAY	s/o Reeves Ave	449	16	0	84	45	100	0	0	1	70.4	71.4	17	48	135	313	648
NAVY WAY	s/o Terminal Way	695	14	0	86	45	100	0	0	1	72.4	73.4	25	72	205	446	898
NEW DOCK ST	w/o Henry Ford Ave	289	19	0	81	45	100	0	0	1	68.4	69.4	11	31	88	217	462
NEW DOCK ST	e/o Henry Ford Ave	540	27	0	73	45	100	0	0	1	70.7	71.7	18	50	142	326	673
NEW DOCK ST	w/o SB off ramp Terminal Island Fwy	540	27	0	73	45	100	0	0	1	70.7	71.7	18	50	142	326	673
NEW DOCK ST	w/o NB on ramp Terminal Island Fwy	270	21	0	79	45	100	0	0	1	68.0	69.0	10	28	81	202	433

NEW DOCK ST	between Terminal Island Fwy SB and NB Ra	270	21	0	79	45	100	0	0	1	68.0	69.0	10	28	81	202	433
PACIFIC COAST HIGHWAY	between Avalon Blvd and Eubank Ave	4271	97	1	2	45	100	0	0	1	71.0	72.0	19	54	153	348	714
PACIFIC COAST HIGHWAY	between Watson Ave and Eubank Ave	4290	97	1	2	45	100	0	0	1	71.0	72.0	19	53	152	345	710
PACIFIC COAST HIGHWAY	w/o Alameda St	4345	96	1	3	45	100	0	0	1	71.5	72.5	21	59	168	375	766
PACIFIC COAST HIGHWAY	w/o East Rd	4050	96	1	4	45	100	0	0	1	71.2	72.2	20	56	159	358	734
PACIFIC COAST HIGHWAY	w/o East Rd	3934	97	1	2	45	100	0	0	1	70.6	71.6	17	49	140	322	666
PACIFIC COAST HIGHWAY	between Watson Ave and Blinn Ave	4271	97	1	2	45	100	0	0	1	71.0	72.0	19	53	151	344	707
PICO AVE	s/o Ocean Blvd	315	45	0	55	35	100	0	0	1	65.5	66.5	6	17	48	130	288
PICO AVE	n/o Ocean Blvd	508	41	0	59	35	100	0	0	1	67.9	68.9	10	28	79	198	425
PICO AVE	n/o Pier C St	1016	34	0	66	35	100	0	0	1	71.3	72.3	20	57	162	364	745
PICO AVE	s/o Pier C St	851	36	0	64	35	100	0	0	1	70.4	71.4	17	48	135	313	648
PICO AVE	n/o Pier DSt	851	35	0	65	35	100	0	0	1	70.4	71.4	17	48	135	313	649
PIER A WAY	e/o Henry Ford Ave	198	28	0	72	35	100	0	0	1	64.5	65.5	5	14	39	110	247
PIER A WAY	e/o Henry Ford Ave	318	25	0	75	35	100	0	0	1	66.8	67.8	8	22	63	163	356
PIER A WAY	e/o Henry Ford Ave	422	15	0	85	35	100	0	0	1	68.5	69.5	11	32	90	223	473
PIER A WAY	between Terminal Island Fwy and Henry Fo	12	8	0	92	35	100	0	0	1	53.4	54.4	0	1	4	15	40
PIER A WAY	n/o Terminal Island Fwy	150	27	0	73	35	100	0	0	1	63.4	64.4	4	11	31	90	206
PIER A WAY	e/o Henry Ford Ave	138	28	0	72	35	100	0	0	1	63.0	64.0	3	10	28	83	191
PIER A WAY	e/o Henry Ford Ave	168	24	0	76	35	100	0	0	1	64.1	65.1	4	13	36	101	229
PIER B ST	s/o 9th St	358	25	0	75	35	100	0	0	1	67.3	68.3	9	25	70	180	389
PIER B ST	w/o Edison Ave	714	67	0	33	35	100	0	0	1	67.1	68.1	8	24	67	173	375
PIER B ST	n/o Pier A way	198	28	0	72	35	100	0	0	1	64.5	65.5	5	14	39	110	247
PIER C ST	w/o Pier B St	258	25	0	75	35	100	0	0	1	65.9	66.9	6	18	52	139	307
PIER C ST	w/o Pier B St	189	9	0	91	35	100	0	0	1	65.3	66.3	6	16	46	127	281
PIER D AVE	s/o Pier D St	152	75	0	25	35	100	0	0	1	59.4	60.4	2	5	13	44	106
PIER D ST	w/o I-710	395	32	0	68	35	100	0	0	1	67.3	68.3	9	25	70	180	390
PIER F AVE	s/o Harbor Plaza	428	25	0	75	35	100	0	0	1	68.1	69.1	10	29	82	206	440
PIER G AV	s/o Harbor Plaza	16	88	0	13	35	100	0	0	1	47.3	48.3	0	0	1	5	15
PIER G AV	s/o Harbor Plaza	16	88	0	13	35	100	0	0	1	47.3	48.3	0	0	1	5	15
PIER J WAY	e/o Panorama Dr	446	10	0	90	35	100	0	0	1	69.0	70.0	12	35	100	241	510
PORT ACCESS RD	e/o Ocean Blvd Ramps	720	26	0	74	35	100	0	0	1	70.3	71.3	16	46	130	303	629
PORT ACCESS RD	n/o New Dock St	232	4	0	96	35	100	0	0	1	66.4	67.4	7	20	58	154	336
PORT ACCESS RD	n/o New Dock St	205	0	0	100	35	100	0	0	1	66.0	67.0	7	19	54	144	316
PORT ACCESS RD	s/o Pier J way	398	16	0	84	35	100	0	0	1	68.2	69.2	10	30	85	211	451
PORT ACCESS RD	s/o Pier J way	446	10	0	90	35	100	0	0	1	69.0	70.0	12	35	100	241	510
PORT ACCESS RD	n/o Pier J way	398	16	0	84	35	100	0	0	1	68.2	69.2	10	30	85	211	451
PORT ACCESS RD	s/o Harbor Scenic way	360	17	0	83	35	100	0	0	1	67.7	68.7	9	27	77	194	417
QUEENSWAY DR	s/o Harbor Scenic Dr	394	27	0	73	35	100	0	0	1	67.6	68.6	9	26	75	190	409
S ALAMEDA ST	n/o Wardlow Rd	987	65	1	34	35	100	0	0	1	68.6	69.6	11	33	93	227	482
S FRIES AVE	s/o Water St	425	31	0	69	35	100	0	0	1	67.7	68.7	9	27	76	193	414
S FRIES AVE	between Harry Bridges Blvd and Water St	230	13	0	87	35	100	0	0	1	66.0	67.0	7	19	53	142	313
S HARBOR SCENIC DR	s/o Shoreline Dr	404	29	0	71	40	100	0	0	1	68.4	69.4	11	31	88	218	463
S HARBOR SCENIC DR	w/o Goldenshore St	993	35	0	65	40	100	0	0	1	72.0	73.0	23	66	187	411	833
S HARBOR SCENIC DR	e/o Goldenshore St	1122	36	0	64	40	100	0	0	1	72.4	73.4	25	72	204	443	893
S HARBOR SCENIC DR	w/o Panorama Dr	1012	29	0	71	40	100	0	0	1	72.4	73.4	25	71	202	440	887
S PICO AVE	s/o Embarcadero	311	41	0	59	35	100	0	0	1	65.7	66.7	6	18	50	136	300
S PICO AVE	n/o Harbor Scenic Dr ramp	665	35	0	65	35	100	0	0	1	69.4	70.4	13	38	108	260	545
S PICO AVE	s/o Harbor Scenic Dr ramp	591	36	0	64	35	100	0	0	1	68.9	69.9	12	34	97	237	501
SAN DIEGO FWY	e/o I-110	19313	91	2	6	65	100	0	0	1	83.5	84.5	259	738	2102	3190	5509
SAN DIEGO FWY	e/o Wilmington Blvd	18760	91	2	6	65	100	0	0	1	83.4	84.4	252	717	2043	3114	5389
SAN DIEGO FWY	w/o Santa Fe Ave	19781	90	2	8	65	100	0	0	1	83.9	84.9	279	795	2265	3398	5840
SAN DIEGO FWY	e/o 218th St	21491	91	2	7	65	100	0	0	1	84.1	85.1	291	828	2357	3514	6023
SAN DIEGO FWY	w/o Alameda St	20530	92	2	6	65	100	0	0	1	83.6	84.6	263	748	2132	3228	5569
SAN DIEGO FWY	e/o Wilmington Ave	19249	92	2	6	65	100	0	0	1	83.4	84.4	250	712	2028	3094	5356
SAN DIEGO FWY	w/o Wilmington Ave	19598	92	2	6	65	100	0	0	1	83.5	84.5	257	731	2082	3165	5469
SAN DIEGO FWY	s/o Carson St	19011	92	2	6	65	100	0	0	1	83.4	84.4	251	715	2036	3105	5373
SAN DIEGO FWY	n/o Carson St	18245	91	2	7	65	100	0	0	1	83.3	84.3	247	704	2006	3066	5312
SAN DIEGO FWY	n/o 213th St	18717	91	2	6	65	100	0	0	1	83.4	84.4	253	720	2051	3124	5404
SAN DIEGO FWY	e/o Avalon Blvd	18253	91	2	7	65	100	0	0	1	83.3	84.3	248	707	2014	3076	5327
SAN DIEGO FWY	w/o Avalon Blvd	18852	91	2	6	65	100	0	0	1	83.5	84.5	254	724	2063	3139	5428
SAN GABRIEL AV	n/o PCH	112	23	0	77	45	100	0	0	1	64.0	65.0	4	12	35	101	227

TERMINAL ISLAND FWY	s/o PCH	1481	56	0	44	55	100	0	0	1	75.1	76.1	44	126	358	713	1384
TERMINAL ISLAND FWY	n/o PCH	1289	59	0	41	55	100	0	0	1	74.3	75.3	37	106	302	618	1213
TERMINAL ISLAND FWY	between Off and loop On ramp at PCH	1481	56	0	43	55	100	0	0	1	75.1	76.1	44	125	357	712	1381
TERMINAL ISLAND FWY	s/o PCH off ramp	2141	52	0	48	55	100	0	0	1	77.0	78.0	66	188	537	1004	1898
TERMINAL ISLAND FWY	between Henry Ford Ave and Anaheim St	1735	59	0	40	55	100	0	0	1	75.5	76.5	48	137	390	767	1480
TERMINAL ISLAND FWY	n/o Ocean Blvd	1795	60	0	39	35	100	0	0	1	71.8	72.8	22	63	178	396	804
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2210	54	0	45	35	100	0	0	1	73.2	74.2	30	85	241	511	1018
TERMINAL ISLAND FWY	e/o Seaside Ave	5104	79	1	21	35	100	0	0	1	74.0	75.0	35	100	284	587	1156
TERMINAL ISLAND FWY	s/o Willow St	1289	59	0	41	35	100	0	0	1	70.5	71.5	17	48	137	316	653
TERMINAL WAY	w/o Ferry St	1285	47	0	53	35	100	0	0	1	71.4	72.4	21	58	166	373	762
TERMINAL WAY	w/o Eaire St	1048	43	0	57	35	100	0	0	1	70.9	71.9	18	52	148	338	696
TERMINAL WAY	s/o Navy Way	738	20	0	80	35	100	0	0	1	70.7	71.7	18	50	143	328	676
TERMINAL WAY	s/o Navy Way	449	23	0	77	35	100	0	0	1	68.4	69.4	11	31	88	217	462
TERMINAL WAY	s/o Navy Way	738	20	0	80	35	100	0	0	1	70.7	71.7	18	50	143	328	676
TERMINAL WAY	s/o Navy Way	289	15	0	85	35	100	0	0	1	66.9	67.9	8	23	64	167	362
TERMINAL WAY	s/o Navy Way	295	15	0	85	35	100	0	0	1	67.0	68.0	8	23	66	170	368
TERMINAL WAY	s/o Navy Way	492	23	0	77	35	100	0	0	1	68.8	69.8	12	34	96	233	494
W 9TH ST	e/o Caspian Ave	750	91	1	8	35	100	0	0	1	63.0	64.0	4	10	28	84	192
W 9TH ST	s/o Anaheim St	1216	79	1	20	35	100	0	0	1	67.7	68.7	9	27	75	191	411
W 9TH ST	e/o Santa Fe Ave	1542	88	1	11	35	100	0	0	1	66.8	67.8	8	22	63	164	358
W 9TH ST	w/o Caspian Ave	1090	92	1	8	35	100	0	0	1	64.4	65.4	5	13	38	107	240
W 9TH ST	n/o Pier B St	62	24	0	76	35	100	0	0	1	59.7	60.7	2	5	14	47	113
W 9TH ST	w/o Santa Fe Ave	1329	79	1	20	35	100	0	0	1	68.0	69.0	10	29	82	205	438
W 9TH ST	s/o Pier B St	484	17	0	83	35	100	0	0	1	69.0	70.0	12	35	100	243	513
W 9TH ST	n/o Pier B St	225	18	0	82	35	100	0	0	1	65.6	66.6	6	17	49	133	295
W ANAHEIM ST	e/o Harbor Ave	2971	92	1	7	35	100	0	0	1	68.6	69.6	11	32	91	225	477
W ANAHEIM ST	e/o Santa Fe Ave	3632	81	1	18	35	100	0	0	1	72.1	73.1	24	67	191	420	849
W ANAHEIM ST	w/o Harbor Ave	3233	87	1	12	35	100	0	0	1	70.3	71.3	16	46	131	304	631
W ANAHEIM ST	w/o Seabright Ave	2861	82	1	17	35	100	0	0	1	70.9	71.9	18	52	148	338	696
W ANAHEIM ST	w/o E I St	3082	92	1	7	35	100	0	0	1	68.8	69.8	12	33	95	233	493
W ANAHEIM ST	w/o Figueroa PL	2421	91	1	9	35	100	0	0	1	68.2	69.2	10	29	84	209	446
W ANAHEIM ST	between Wilmington and Neptune Ave	2062	98	1	1	35	100	0	0	1	64.5	65.5	5	14	39	110	247
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	2257	98	1	1	35	100	0	0	1	64.8	65.8	5	15	41	115	258
W ANAHEIM ST	e/o Neptune	2053	98	1	1	35	100	0	0	1	64.3	65.3	5	13	38	106	239
W ANAHEIM ST	between Neptune Ave and Fries Ave	1978	98	1	1	35	100	0	0	1	64.2	65.2	5	13	37	104	235
W ANAHEIM ST	w/o Frigate Ave	2420	98	1	1	35	100	0	0	1	65.1	66.1	5	15	44	121	270
W ANAHEIM ST	e/o Figueroa PL	2679	91	1	8	35	100	0	0	1	68.4	69.4	11	31	88	217	462
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	2742	82	1	17	35	100	0	0	1	70.6	71.6	17	49	141	323	668
W ANAHEIM ST	between Fries Ave and Avalon Blvd	2347	98	1	1	35	100	0	0	1	65.1	66.1	5	15	44	120	269
W ANAHEIM ST	between I-710 SB and NB Ramps	3415	93	1	6	35	100	0	0	1	68.8	69.8	12	34	97	235	498
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	1838	72	1	27	35	100	0	0	1	70.5	71.5	17	48	138	318	658
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2224	75	1	25	35	100	0	0	1	71.0	72.0	19	54	152	346	711
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	1648	73	1	26	35	100	0	0	1	69.9	70.9	15	43	121	285	595
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2251	75	1	24	35	100	0	0	1	71.0	72.0	19	53	152	345	709
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	1809	66	1	33	35	100	0	0	1	71.2	72.2	19	55	158	357	731
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2215	75	1	25	35	100	0	0	1	71.0	72.0	19	53	152	345	709
W I ST	n/o Anaheim St	444	87	1	11	35	100	0	0	1	61.6	62.6	3	7	21	65	153
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	4750	98	1	1	35	100	0	0	1	68.1	69.1	10	29	82	205	438
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	5023	98	1	1	35	100	0	0	1	68.3	69.3	11	31	87	215	459
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	3891	85	1	14	35	100	0	0	1	71.7	72.7	22	61	175	389	792
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	3920	78	1	21	35	100	0	0	1	72.9	73.9	28	80	228	487	973
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	3857	78	1	21	35	100	0	0	1	72.9	73.9	28	79	225	482	964
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	4491	97	1	2	35	100	0	0	1	68.3	69.3	11	30	86	214	455
W PACIFIC COAST HIGHWAY	e/o Figueroa St	4365	97	1	2	35	100	0	0	1	68.1	69.1	10	29	82	206	440
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	4431	97	1	2	35	100	0	0	1	68.3	69.3	11	30	86	213	454
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	3701	84	1	15	35	100	0	0	1	71.6	72.6	21	60	172	383	781
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	3899	80	1	20	35	100	0	0	1	72.7	73.7	27	76	215	464	931
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	3582	84	1	15	35	100	0	0	1	71.5	72.5	21	60	170	380	774
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	4253	87	1	12	35	100	0	0	1	71.5	72.5	21	59	168	376	767
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	363	14	0	86	35	100	0	0	1	67.9	68.9	10	28	80	200	429
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	406	11	0	89	35	100	0	0	1	68.5	69.5	11	32	90	223	473
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	4641	96	1	3	40	100	0	0	1	70.1	71.1	15	44	126	294	611

W SEPULVEDA BLVD	w/o NB I-110 off ramp	4651	96	1	3	40	100	0	0	1	70.1	71.1	15	44	125	294	611
W SEPULVEDA BLVD	w/o Figueroa St	3986	97	1	2	40	100	0	0	1	69.2	70.2	13	37	104	251	528
W SEPULVEDA BLVD	e/o Figueroa St	2373	97	1	2	40	100	0	0	1	67.0	68.0	8	23	65	169	367
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	4655	96	1	3	40	100	0	0	1	70.1	71.1	16	44	127	296	616
W WATER ST	between Fries Ave and Avalon Blvd	185	56	0	44	35	100	0	0	1	62.3	63.3	3	9	25	75	173
W WILLOW ST	between NB and SB Terminal Island Fwy	3915	89	1	10	35	100	0	0	1	70.7	71.7	18	50	142	327	674
W WILLOW ST	between Terminal Island Fwy and Santa Fe	4148	96	1	2	35	100	0	0	1	68.1	69.1	10	29	83	207	443
W WILLOW ST	between Santa Fe Ave and Easy Ave	3762	96	1	3	35	100	0	0	1	67.9	68.9	10	28	79	199	427
W WILLOW ST	e/o Easy Ave	5231	97	1	2	35	100	0	0	1	69.0	70.0	12	35	100	242	512
W WILLOW ST	w/o SB I-710 ramps	4424	97	1	2	35	100	0	0	1	68.0	69.0	10	29	82	204	437
W WILLOW ST	w/o NB I-710 on ramp	4727	97	1	2	35	100	0	0	1	68.5	69.5	11	31	89	220	468
SAN DIEGO FWY	SB e/o Wilmington Ave	20109	93	2	5	21	100	0	0	1	74.0	75.0	35	99	283	584	1152
SAN DIEGO FWY	SB w/o Wilmington Ave	20671	92	2	6	18	100	0	0	1	74.3	75.3	38	108	306	625	1226
SAN DIEGO FWY	SB s/o Carson St	19487	92	2	6	23	100	0	0	1	74.2	75.2	37	105	300	614	1207
SAN DIEGO FWY	NB n/o Carson St	17280	91	2	6	31	100	0	0	1	75.3	76.3	46	132	376	744	1439
SAN DIEGO FWY	NB n/o 213th St	18218	91	2	6	28	100	0	0	1	74.8	75.8	42	119	340	682	1329
SAN DIEGO FWY	NB e/o Avalon Blvd	17281	91	2	7	31	100	0	0	1	75.4	76.4	47	133	380	750	1450
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB w/o Avalon Blvd	18975	91	2	6	33	100	0	0	1	76.0	77.0	54	152	434	840	1609
SAN DIEGO FWY	SB e/o Avalon Blvd	18619	91	2	7	27	100	0	0	1	74.8	75.8	42	119	338	679	1323
SAN DIEGO FWY	NB w/o Wilmington Ave	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	NB e/o 218th St	20319	91	2	7	25	100	0	0	1	75.3	76.3	46	130	372	736	1425
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB s/o Carson St	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	SB n/o Carson St	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN GABRIEL AV	n/o PCH	225	20	0	80	30	100	0	0	1	65.0	66.0	5	15	43	119	266
TERMINAL ISLAND FWY	s/o PCH	2810	63	0	37	30	100	0	0	1	72.8	73.8	27	78	222	476	954
TERMINAL ISLAND FWY	n/o PCH	2465	67	0	33	30	100	0	0	1	71.8	72.8	22	63	181	400	812
TERMINAL ISLAND FWY	n/o Ocean Blvd	3502	65	0	35	30	100	0	0	1	73.6	74.6	32	91	259	543	1077
TERMINAL ISLAND FWY	NB s/o PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	SB n/o PCH	1125	64	0	36	49	100	0	0	1	72.1	73.1	23	67	190	418	845
TERMINAL ISLAND FWY	NB between Off and loop On ramp at PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	NB s/o PCH off ramp	2176	49	0	51	48	100	0	0	1	76.0	77.0	53	150	428	830	1593
TERMINAL ISLAND FWY	SB n/o Anaheim St	1120	72	0	28	49	100	0	0	1	71.2	72.2	19	55	158	357	732
TERMINAL ISLAND FWY	NB between Henry Ford Ave and Anaheim St	1726	55	0	45	49	100	0	0	1	74.6	75.6	40	114	325	658	1285
TERMINAL ISLAND FWY	NB n/o Ocean Blvd	1908	61	0	38	39	100	0	0	1	72.6	73.6	26	75	213	460	924
TERMINAL ISLAND FWY	SB n/o Ocean Blvd	1594	69	0	30	39	100	0	0	1	71.0	72.0	19	53	152	346	710
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2283	53	0	47	39	100	0	0	1	74.1	75.1	36	102	290	596	1174
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	e/o Seaside Ave	4985	80	1	19	27	100	0	0	1	72.5	73.5	26	73	208	451	908
TERMINAL ISLAND FWY	SB s/o Anaheim Way	1814	65	0	35	49	100	0	0	1	74.0	75.0	35	101	287	592	1166
TERMINAL ISLAND FWY	NB s/o Willow St	1353	66	0	33	25	100	0	0	1	68.9	69.9	12	34	97	237	501
TERMINAL ISLAND FWY	SB s/o PCH on ramp	1891	65	0	34	48	100	0	0	1	74.0	75.0	35	101	287	591	1165
TERMINAL ISLAND FWY	SB s/o PCH	1284	61	0	39	49	100	0	0	1	72.9	73.9	28	79	225	481	962
TERMINAL ISLAND FWY	NB n/o PCH	1340	69	0	30	49	100	0	0	1	72.2	73.2	24	69	196	428	864
TERMINAL ISLAND FWY	SB between loop Off and On ramp at PCH	1284	61	0	38	49	100	0	0	1	72.8	73.8	28	79	224	479	960
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2310	53	0	47	39	100	0	0	1	74.2	75.2	36	104	296	607	1194
TERMINAL WAY	w/o Ferry St	2434	58	0	42	24	100	0	0	1	72.4	73.4	25	71	203	442	890
TERMINAL WAY	w/o Eaire St	1905	54	0	46	33	100	0	0	1	72.3	73.3	25	70	199	434	875
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	743	26	0	74	30	100	0	0	1	69.8	70.8	14	41	118	278	581
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	542	19	0	81	31	100	0	0	1	68.9	69.9	12	34	98	238	504
TERMINAL WAY	s/o Navy Way	549	18	0	82	31	100	0	0	1	69.0	70.0	12	35	99	241	510
TERMINAL WAY	s/o Navy Way	884	26	0	74	29	100	0	0	1	70.5	71.5	17	48	137	316	653
W 9TH ST	e/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	85	195
W 9TH ST	s/o Anaheim St	1537	84	1	15	27	100	0	0	1	66.5	67.5	7	21	60	157	342
W 9TH ST	e/o Santa Fe Ave	1809	91	1	8	22	100	0	0	1	64.7	65.7	5	14	41	114	256
W 9TH ST	w/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	86	196
W 9TH ST	n/o Pier B St	96	34	0	66	38	100	0	0	1	61.6	62.6	3	7	21	65	153
W 9TH ST	w/o Santa Fe Ave	1839	83	1	17	20	100	0	0	1	67.5	68.5	9	26	73	187	403

W 9TH ST	s/o Pier B St	856	21	0	79	36	100	0	0	1	71.4	72.4	20	58	164	369	754
W 9TH ST	n/o Pier B St	315	28	0	72	36	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Harbor Ave	3311	93	1	6	26	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Santa Fe Ave	4489	82	1	17	24	100	0	0	1	71.4	72.4	20	58	165	371	757
W ANAHEIM ST	w/o Harbor Ave	3937	88	1	11	25	100	0	0	1	69.3	70.3	13	38	107	257	540
W ANAHEIM ST	w/o Seabright Ave	3538	83	1	16	26	100	0	0	1	70.2	71.2	16	45	129	301	625
W ANAHEIM ST	w/o E I St	4550	92	1	7	24	100	0	0	1	68.2	69.2	10	30	85	211	450
W ANAHEIM ST	w/o Figueroa PL	3972	91	1	8	24	100	0	0	1	68.4	69.4	11	31	88	218	464
W ANAHEIM ST	between Wilmington and Neptune Ave	3181	98	1	1	26	100	0	0	1	63.4	64.4	4	11	31	90	206
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	3602	98	1	1	25	100	0	0	1	63.6	64.6	4	11	32	93	212
W ANAHEIM ST	e/o Neptune	3195	98	1	1	26	100	0	0	1	63.2	64.2	4	10	30	87	199
W ANAHEIM ST	between Neptune Ave and Fries Ave	3063	98	1	1	26	100	0	0	1	63.3	64.3	4	11	30	88	201
W ANAHEIM ST	w/o Frigate Ave	3691	98	1	1	24	100	0	0	1	63.5	64.5	4	11	32	91	208
W ANAHEIM ST	e/o Figueroa PL	4409	92	1	8	23	100	0	0	1	68.4	69.4	11	31	89	219	467
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	3407	83	1	16	26	100	0	0	1	70.1	71.1	15	44	125	292	608
W ANAHEIM ST	between Fries Ave and Avalon Blvd	3641	98	1	1	25	100	0	0	1	63.8	64.8	4	12	34	97	219
W ANAHEIM ST	between I-710 SB and NB Ramps	4032	94	1	5	23	100	0	0	1	66.9	67.9	8	23	64	167	362
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2947	77	1	23	28	100	0	0	1	71.0	72.0	19	53	151	344	707
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	2409	78	1	21	30	100	0	0	1	70.0	71.0	15	44	124	291	606
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2917	78	1	21	29	100	0	0	1	70.7	71.7	18	50	143	328	677
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2714	72	1	28	29	100	0	0	1	71.5	72.5	21	59	167	375	765
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W I ST	n/o Anaheim St	875	87	1	12	26	100	0	0	1	63.1	64.1	4	10	29	85	196
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	8001	98	1	1	25	100	0	0	1	67.1	68.1	8	23	67	172	373
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	8552	98	1	1	24	100	0	0	1	67.4	68.4	9	25	71	181	392
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	5894	85	1	14	23	100	0	0	1	71.8	72.8	22	63	180	399	811
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	5846	80	1	20	19	100	0	0	1	73.4	74.4	31	88	250	527	1047
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	5737	80	1	19	19	100	0	0	1	73.2	74.2	30	85	242	512	1020
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	6514	97	1	2	27	100	0	0	1	67.8	68.8	10	27	78	196	420
W PACIFIC COAST HIGHWAY	e/o Figueroa St	6855	97	1	2	26	100	0	0	1	67.6	68.6	9	26	74	189	407
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	6425	97	1	2	29	100	0	0	1	68.3	69.3	11	30	86	214	456
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	5399	86	1	13	28	100	0	0	1	71.5	72.5	21	60	170	379	774
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	6025	81	1	18	16	100	0	0	1	73.6	74.6	32	92	261	547	1083
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	5307	84	1	15	21	100	0	0	1	71.7	72.7	22	61	175	389	791
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	5717	90	1	9	21	100	0	0	1	70.2	71.2	16	45	129	301	625
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	785	19	0	81	30	100	0	0	1	70.4	71.4	17	47	135	312	647
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	963	15	0	85	24	100	0	0	1	71.3	72.3	20	57	161	363	743
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	7322	96	1	3	24	100	0	0	1	67.7	68.7	9	27	76	192	413
W SEPULVEDA BLVD	w/o NB I-110 off ramp	7449	96	1	3	27	100	0	0	1	68.4	69.4	11	31	88	217	462
W SEPULVEDA BLVD	w/o Figueroa St	6324	97	1	2	29	100	0	0	1	68.0	69.0	10	28	80	202	432
W SEPULVEDA BLVD	e/o Figueroa St	3739	97	1	2	29	100	0	0	1	65.7	66.7	6	18	50	136	300
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	7414	96	1	3	23	100	0	0	1	67.8	68.8	10	27	77	195	419
W WATER ST	between Fries Ave and Avalon Blvd	343	56	0	44	30	100	0	0	1	64.4	65.4	5	13	38	108	242
W WILLOW ST	between NB and SB Terminal Island Fwy	5909	91	1	8	21	100	0	0	1	69.9	70.9	15	43	121	285	595
W WILLOW ST	between Terminal Island Fwy and Santa Fe	6681	96	1	2	16	100	0	0	1	66.7	67.7	8	22	61	160	350
W WILLOW ST	between Santa Fe Ave and Easy Ave	6247	96	1	3	19	100	0	0	1	66.7	67.7	8	22	62	163	354
W WILLOW ST	e/o Easy Ave	8543	97	1	2	11	100	0	0	1	68.7	69.7	11	33	93	228	484
W WILLOW ST	w/o SB I-710 ramps	6855	97	1	2	16	100	0	0	1	65.9	66.9	6	18	53	141	310
W WILLOW ST	w/o NB I-710 on ramp	7244	97	1	2	14	100	0	0	1	66.6	67.6	7	21	60	158	345

FHWA TRAFFIC NOISE CALCULATOR

SCIG 2010 EXISTING PLUS PROJECT CONDITIONS TRAFFIC

ROADWAY	Segment	Peak Hour Volume	Vehicle Distribution %Auto	%MT	%HT	Vehicle Speed mph	Receiver Distance CL, ft	Grade % NL	FL	CNEL Correction	PREDICTED TRAFFIC NOISE LEVEL, dBA Leq @ Rec.	CNEL @ Rec.	DISTANCE TO CNEL CONTOURS 80	75	70	65	60
1ST ST	e/o East RD	561	32	0	66	25	100	0	0	1	72.2	73.2	24	68	195	426	861
ACCESS RD	e/o Ferry St	338	33	0	23	30	100	0	0	1	61.5	62.5	3	7	21	64	150
ALAMEDA ST	n/o Anaheim St	1646	72	1	17	40	100	0	0	1	69.3	70.3	13	38	107	257	541
ALAMEDA ST	w/o Eubank Ave	2016	68	1	30	40	100	0	0	1	72.2	73.2	24	69	196	428	864
ALAMEDA ST	s/o PCH	1844	60	1	29	40	100	0	0	1	71.6	72.6	21	60	171	382	778
ALAMEDA ST	s/o Anaheim St	3350	76	1	21	40	100	0	0	1	73.1	74.1	29	83	237	502	1002
E 223RD ST	w/o I-405 Off ramps	3716	87	1	8	35	100	0	0	1	69.9	70.9	15	42	120	283	590
E ANAHEIM ST	between Avalon Blvd and Broad Ave	2238	99	1	1	35	100	0	0	1	64.6	65.6	5	14	40	112	251
E ANAHEIM ST	between Eubank Ave and Sanford St	2407	99	1	1	35	100	0	0	1	64.9	65.9	5	15	42	117	261
E ANAHEIM ST	between Sanford Ave and Sanford St	2470	99	1	1	35	100	0	0	1	65.0	66.0	5	15	43	120	267
E ANAHEIM ST	between Anaheim and Henry Ford	4106	91	1	12	35	100	0	0	1	71.3	72.3	20	56	161	362	741
E ANAHEIM ST	e/o Henry Ford Ave	3740	93	1	9	45	100	0	0	1	72.6	73.6	26	74	211	455	916
E ANAHEIM ST	w/o E I St	3200	94	1	9	45	100	0	0	1	71.8	72.8	22	64	181	401	814
E ANAHEIM ST	e/o Sanford Ave	2402	99	1	1	45	100	0	0	1	67.9	68.9	10	28	80	201	431
E ANAHEIM ST	w/o Anaheim Way	3740	93	1	9	45	100	0	0	1	72.6	73.6	26	74	211	455	916
E ANAHEIM ST	between Henry Ford Ave and Terminal Isla	3740	93	1	9	45	100	0	0	1	72.6	73.6	26	74	211	455	916
E HARRY BRIDGES BLVD	e/o Avalon Blvd	1854	70	1	29	35	100	0	0	1	70.8	71.8	18	51	146	334	687
E I ST	between Terminal Island Fwy and Anaheim	1135	56	0	61	35	100	0	0	1	71.6	72.6	21	60	171	382	778
E OPP ST	w/o Farragut Ave	229	995	0	95	35	100	0	0	1	68.2	69.2	10	30	85	211	450
E SEPULVEDA BLVD	e/o Alameda St	3735	94	2	4	40	100	0	0	1	69.7	70.7	14	41	116	274	574
E SEPULVEDA BLVD	w/o Dolores St	3301	97	1	2	40	100	0	0	1	68.3	69.3	11	30	86	213	455
E SEPULVEDA BLVD	w/o Wilmington Ave	3753	96	1	2	40	100	0	0	1	69.1	70.1	12	36	101	245	517
E SEPULVEDA BLVD	e/o Wilmington Ave	2725	95	1	3	40	100	0	0	1	67.9	68.9	10	28	79	199	427
E SEPULVEDA BLVD	e/o Dolores St	2956	97	1	2	40	100	0	0	1	67.9	68.9	10	28	79	198	425
E SEPULVEDA BLVD	w/o Avalon Blvd	2877	96	1	2	40	100	0	0	1	67.8	68.8	10	27	78	197	422
EAST RD	n/o 1st St	319	10	0	104	26	100	0	0	1	67.4	68.4	9	25	71	181	392
EAST RD	s/o 1st St	314	12	0	130	37	100	0	0	1	69.4	70.4	13	38	108	258	542
FARRAGUT AVE	Between Terminal Island Fwy SB ramps and	917	69	0	51	35	100	0	0	1	69.9	70.9	15	42	121	285	593
FARRAGUT AVE	s/o E OPP St	229	995	0	95	35	100	0	0	1	68.2	69.2	10	30	85	211	450
FERRY ST	between Seaside Ave and Access Rd	648	56	0	37	25	100	0	0	1	66.1	67.1	7	19	54	145	319
FERRY ST	between Terminal Way and Pitchard St	1029	49	0	44	25	100	0	0	1	68.8	69.8	12	34	96	234	496
FIGUEROA ST	n/o Anaheim St	766	86	1	13	35	100	0	0	1	64.3	65.3	5	13	38	106	239
FIGUEROA ST	n/o PCH	1947	97	1	2	35	100	0	0	1	64.7	65.7	5	14	40	113	253
HARBOR FWY	n/o PCH off Ramp	11438	89	1	10	65	100	0	0	1	81.8	82.8	181	516	1469	2355	4165
HARBOR FWY	s/o Sepulveda Blvd	10943	89	1	10	65	100	0	0	1	81.7	82.7	175	497	1416	2284	4048
HARBOR FWY	n/o Sepulveda Blvd	11653	89	1	9	65	100	0	0	1	81.9	82.9	182	519	1478	2367	4185
HARBOR FWY	n/o 223rd St	12760	90	1	9	65	100	0	0	1	82.1	83.1	192	546	1555	2472	4356
HARBOR FWY	n/o 220th St	13409	90	1	8	65	100	0	0	1	82.3	83.3	198	564	1607	2542	4468
HARBOR FWY	n/o Carson St	14448	90	1	8	65	100	0	0	1	82.5	83.5	208	593	1689	2651	4645
HARBOR FWY	n/o Redondo Beach Blvd	18009	94	1	5	65	100	0	0	1	82.7	83.7	218	620	1765	2752	4807
HARBOR FWY	between 135 th St and Rosecrans Ave	17843	94	1	4	65	100	0	0	1	82.6	83.6	215	611	1741	2720	4756
HARBOR FWY	n/o 135th St	16739	94	2	5	65	100	0	0	1	82.4	83.4	204	581	1655	2606	4572
HARBOR FWY	n/o Alondra	17312	94	1	5	65	100	0	0	1	82.6	83.6	212	602	1716	2686	4702
HARBOR FWY	between Del Amo Blvd and Torrance Blv	14108	90	1	8	65	100	0	0	1	82.4	83.4	205	583	1659	2611	4580
HARBOR FWY	between 168th and Alondra	18040	94	1	5	65	100	0	0	1	82.8	83.8	221	629	1790	2785	4861
HARBOR FWY	n/o Del Amo Blvd	15545	91	1	7	65	100	0	0	1	82.7	83.7	219	623	1775	2765	4829
HARBOR FWY	n/o I-405	12942	91	1	7	65	100	0	0	1	81.8	82.8	179	511	1454	2336	4133
HARBOR FWY	s/o I-405	12924	91	1	7	65	100	0	0	1	81.8	82.8	179	510	1453	2333	4129
HARBOR FWY	s/o 182nd St	14840	92	1	6	65	100	0	0	1	82.2	83.2	196	558	1588	2516	4427
HARBOR FWY	between Artesia Blvd and 168th	15291	94	1	5	65	100	0	0	1	82.1	83.1	192	546	1556	2474	4358
HARBOR FWY	s/o SR-91	15401	93	1	5	65	100	0	0	1	82.2	83.2	194	551	1570	2492	4388
HARBOR FWY	s/o PCH off Ramp	9538	87	1	12	65	100	0	0	1	81.4	82.4	166	472	1344	2185	3886
HARBOR FWY	n/o El Segundo Blvd	16718	93	2	5	65	100	0	0	1	82.5	83.5	208	592	1686	2647	4638
HARBOR FWY	s/o El Segundo Blvd	16703	94	2	5	65	100	0	0	1	82.4	83.4	204	581	1655	2605	4571
HARBOR FWY	n/o Anaheim St	10832	89	1	10	65	100	0	0	1	81.7	82.7	174	497	1415	2282	4046

HARBOR FWY	s/o 120th St	16551	94	2	5	65	100	0	0	1	82.4	83.4	204	582	1659	2610	4579
HARBOR FWY	n/o 120th St	14307	93	2	5	65	100	0	0	1	81.9	82.9	182	517	1473	2361	4175
HARBOR FWY	n/o I-105	16455	94	2	5	65	100	0	0	1	82.4	83.4	203	578	1645	2592	4550
HARBOR FWY	n/o 108th St	19331	94	2	4	65	100	0	0	1	83.0	84.0	231	659	1877	2898	5043
HARBOR FWY	s/o 223rd St	12920	90	1	9	65	100	0	0	1	82.2	83.2	195	554	1578	2502	4404
HARBOR FWY	s/o 190th St	13404	91	1	7	65	100	0	0	1	82.1	83.1	190	540	1538	2448	4316
HARBOR PLZ	between Pier F Ave and Pico Ave	387	28	0	56	40	100	0	0	1	67.2	68.2	8	24	68	176	380
HARBOR SCENIC DR	w/o Goldenshore St	838	40	0	48	40	100	0	0	1	70.0	71.0	15	43	123	289	602
HARBOR SCENIC DR	s/o Shoreline Dr	922	37	0	49	40	100	0	0	1	70.5	71.5	17	48	136	315	652
HARBOR SCENIC DR	n/o Shoreline Dr	1050	33	0	50	40	100	0	0	1	71.1	72.1	19	55	156	354	726
HARBOR SCENIC WAY	e/o Queens Hwy	298	17	0	66	40	100	0	0	1	66.7	67.7	8	22	62	162	354
HARBOR SCENIC WAY	e/o Port Access Rd	336	16	0	69	40	100	0	0	1	67.4	68.4	9	25	72	183	394
HARBOR SCENIC WAY	w/o Port Access Rd	336	16	0	69	40	100	0	0	1	67.4	68.4	9	25	72	183	394
JOHN S GIBSON BLVD	n/o I-110 Ramps	1629	75	0	22	35	100	0	0	1	69.2	70.2	13	37	105	253	532
LONG BEACH FWY	n/o Imperial Hwy	16412	83	1	8	65	100	0	0	1	83.0	84.0	231	659	1876	2897	5041
LONG BEACH FWY	s/o Imperial Hwy	18061	84	1	8	65	100	0	0	1	83.3	84.3	248	708	2015	3078	5331
LONG BEACH FWY	n/o I-105	15481	82	1	9	65	100	0	0	1	82.8	83.8	222	632	1800	2797	4880
LONG BEACH FWY	s/o I-105	14882	81	1	9	65	100	0	0	1	82.7	83.7	217	617	1758	2742	4791
LONG BEACH FWY	n/o Rosecrans Ave	15226	82	1	9	65	100	0	0	1	82.7	83.7	219	623	1776	2766	4830
LONG BEACH FWY	s/o Rosecrans Ave	22335	84	1	9	65	100	0	0	1	84.5	85.5	316	901	2565	3775	6434
LONG BEACH FWY	n/o Alondra	22027	84	1	9	65	100	0	0	1	84.5	85.5	314	893	2544	3749	6394
LONG BEACH FWY	between Alondra and Rosecrans	22329	84	1	9	65	100	0	0	1	84.5	85.5	317	902	2569	3780	6442
LONG BEACH FWY	s/o Alondra	21896	84	1	9	65	100	0	0	1	84.5	85.5	313	892	2539	3743	6384
LONG BEACH FWY	n/o SR-91	17238	81	1	10	65	100	0	0	1	83.7	84.7	265	756	2152	3254	5610
LONG BEACH FWY	n/o Artesia Blvd	12507	78	1	12	65	100	0	0	1	82.6	83.6	211	601	1711	2680	4691
LONG BEACH FWY	s/o Artesia Blvd	15619	78	1	13	65	100	0	0	1	83.7	84.7	270	769	2190	3303	5688
LONG BEACH FWY	n/o Long Beach Blvd	16793	79	1	13	65	100	0	0	1	84.0	85.0	285	812	2312	3457	5934
LONG BEACH FWY	s/o Long Beach Blvd	15182	77	1	14	65	100	0	0	1	83.8	84.8	271	772	2199	3314	5706
LONG BEACH FWY	n/o Del Amo Blvd	15990	78	1	14	65	100	0	0	1	83.9	84.9	280	797	2269	3403	5847
LONG BEACH FWY	s/o Del Amo Blvd Off ramp	15554	78	1	14	65	100	0	0	1	83.8	84.8	274	780	2222	3343	5753
LONG BEACH FWY	s/o Del Amo Blvd	16420	79	1	13	65	100	0	0	1	84.0	85.0	283	807	2298	3440	5906
LONG BEACH FWY	n/o Wardlow Rd	9419	71	1	19	65	100	0	0	1	82.3	83.3	201	572	1628	2569	4513
LONG BEACH FWY	s/o Wardlow Rd	12179	76	1	16	65	100	0	0	1	83.1	84.1	238	676	1926	2963	5147
LONG BEACH FWY	n/o Willow St	12307	81	1	17	65	100	0	0	1	83.4	84.4	252	718	2046	3118	5394
LONG BEACH FWY	s/o Willow St	11400	75	1	17	65	100	0	0	1	82.9	83.9	227	646	1841	2851	4967
LONG BEACH FWY	between off/of namps at Willow St	11438	75	1	17	65	100	0	0	1	83.0	84.0	229	652	1858	2873	5003
LONG BEACH FWY	s/o Anaheim St	10122	78	1	16	65	100	0	0	1	82.3	83.3	201	574	1634	2577	4525
LONG BEACH FWY	s/o PCH	10122	78	1	16	65	100	0	0	1	82.3	83.3	201	574	1634	2577	4525
LONG BEACH FWY	n/o Anahiem St	10305	77	1	16	65	100	0	0	1	82.3	83.3	202	574	1635	2579	4529
LONG BEACH FWY	s/o Firestone Blvd	18228	84	1	8	65	100	0	0	1	83.3	84.3	248	706	2011	3072	5321
LONG BEACH FWY	s/o 9th St	1837	33	0	42	65	100	0	0	1	77.6	78.6	74	211	600	1104	2070
LONG BEACH FWY	n/o Long Beach Blvd	15421	78	1	13	65	100	0	0	1	83.7	84.7	268	762	2171	3278	5649
LONG BEACH FWY	n/o 9th St	2051	29	0	40	65	100	0	0	1	77.8	78.8	78	222	632	1154	2158
LONG BEACH FWY	n/o 10th St	5638	67	1	23	65	100	0	0	1	80.7	81.7	144	409	1164	1935	3474
LONG BEACH FWY	s/o On ramp at Del Amo Blvd	15927	78	1	14	65	100	0	0	1	83.9	84.9	278	792	2257	3387	5822
LONG BEACH FWY	s/o Willow St	10681	73	1	18	65	100	0	0	1	82.8	83.8	222	631	1797	2794	4875
LONG BEACH FWY	n/o Anaheim St	10317	76	1	17	65	100	0	0	1	82.6	83.6	213	608	1731	2707	4735
N HENRY FORD AVE	n/o Terminal Island fwy	750	43	0	51	40	100	0	0	1	69.7	70.7	14	41	117	277	578
N HENRY FORD AVE	n/o Anaheim St	320	9	0	84	40	100	0	0	1	68.0	69.0	10	29	82	204	437
N SEASIDE AVE	e/o Navy Way	4830	74	1	22	55	100	0	0	1	78.0	79.0	82	233	664	1203	2242
N SEASIDE AVE	e/o Access Rd ramp	2202	78	1	21	55	100	0	0	1	74.5	75.5	39	111	315	641	1254
N SEASIDE AVE	w/o Navy Way	4739	78	1	21	55	100	0	0	1	77.7	78.7	77	219	623	1141	2134
N SEASIDE AVE	e/o Ferry St	648	56	0	37	55	100	0	0	1	70.9	71.9	18	52	148	338	696
N SEASIDE AVE	e/o Navy Way ramp	5113	68	1	26	55	100	0	0	1	78.8	79.8	95	271	772	1367	2521
N SEASIDE AVE	e/o Navy Way	4830	74	1	22	55	100	0	0	1	78.0	79.0	82	233	664	1203	2242
NAVY WAY	s/o Reeves Ave	386	17	0	69	45	100	0	0	1	69.0	70.0	12	35	99	241	509
NAVY WAY	s/o Terminal Way	514	14	0	60	45	100	0	0	1	69.6	70.6	14	40	113	269	564
NEW DOCK ST	w/o Henry Ford Ave	230	19	0	61	45	100	0	0	1	66.1	67.1	7	19	55	146	321
NEW DOCK ST	e/o Henry Ford Ave	432	27	0	53	45	100	0	0	1	68.4	69.4	11	31	87	216	461
NEW DOCK ST	w/o SB off ramp Terminal Island Fwy	432	27	0	53	45	100	0	0	1	68.4	69.4	11	31	87	216	461
NEW DOCK ST	w/o NB on ramp Terminal Island Fwy	234	21	0	66	45	100	0	0	1	66.6	67.6	7	21	60	157	344

NEW DOCK ST	between Terminal Island Fwy SB and NB Ra	234	21	0	66	45	100	0	0	1	66.6	67.6	7	21	60	157	344
PACIFIC COAST HIGHWAY	between Avalon Blvd and Eubank Ave	4300	98	1	2	45	100	0	0	1	71.0	72.0	19	53	152	345	708
PACIFIC COAST HIGHWAY	between Watson Ave and Eubank Ave	4319	98	1	2	45	100	0	0	1	70.9	71.9	19	53	150	342	704
PACIFIC COAST HIGHWAY	w/o Alameda St	4374	97	1	3	45	100	0	0	1	71.4	72.4	20	58	166	372	759
PACIFIC COAST HIGHWAY	w/o East Rd	4039	96	1	3	45	100	0	0	1	70.9	71.9	18	52	147	337	693
PACIFIC COAST HIGHWAY	w/o East Rd	3978	98	1	2	45	100	0	0	1	70.7	71.7	18	50	143	328	676
PACIFIC COAST HIGHWAY	between Watson Ave and Blinn Ave	4300	98	1	2	45	100	0	0	1	70.9	71.9	18	53	150	341	701
PICO AVE	s/o Ocean Blvd	297	45	0	49	35	100	0	0	1	64.8	65.8	5	15	41	115	257
PICO AVE	n/o Ocean Blvd	450	41	0	48	35	100	0	0	1	66.4	67.4	7	21	58	154	337
PICO AVE	n/o Pier C St	834	34	0	48	35	100	0	0	1	69.1	70.1	13	36	102	247	521
PICO AVE	s/o Pier C St	709	36	0	48	35	100	0	0	1	68.4	69.4	11	31	88	218	464
PICO AVE	n/o Pier DSt	709	35	0	48	35	100	0	0	1	68.4	69.4	11	31	88	218	464
PIER A WAY	e/o Henry Ford Ave	145	28	0	45	35	100	0	0	1	61.3	62.3	2	7	20	62	145
PIER A WAY	e/o Henry Ford Ave	272	25	0	60	35	100	0	0	1	65.2	66.2	6	16	45	123	274
PIER A WAY	e/o Henry Ford Ave	333	15	0	64	35	100	0	0	1	66.3	67.3	7	20	56	149	328
PIER A WAY	between Terminal Island Fwy and Henry Fo	12	8	0	92	35	100	0	0	1	53.4	54.4	0	1	4	15	40
PIER A WAY	n/o Terminal Island Fwy	130	27	0	59	35	100	0	0	1	61.9	62.9	3	8	23	69	161
PIER A WAY	e/o Henry Ford Ave	118	28	0	57	35	100	0	0	1	61.3	62.3	2	7	20	62	145
PIER A WAY	e/o Henry Ford Ave	142	24	0	61	35	100	0	0	1	62.4	63.4	3	9	25	75	173
PIER B ST	s/o 9th St	290	25	0	56	35	100	0	0	1	65.2	66.2	6	16	45	123	274
PIER B ST	w/o Edison Ave	683	67	0	29	35	100	0	0	1	66.4	67.4	7	20	58	152	333
PIER B ST	n/o Pier A way	174	28	0	60	35	100	0	0	1	63.2	64.2	4	10	30	87	198
PIER C ST	w/o Pier B St	206	25	0	55	35	100	0	0	1	63.5	64.5	4	11	32	92	210
PIER C ST	w/o Pier B St	137	9	0	64	35	100	0	0	1	62.4	63.4	3	9	25	75	174
PIER D AVE	s/o Pier D St	298	147	0	49	35	100	0	0	1	65.2	66.2	6	16	45	123	275
PIER D ST	w/o I-710	402	47	0	55	35	100	0	0	1	66.6	67.6	7	21	60	158	345
PIER F AVE	s/o Harbor Plaza	354	25	0	58	35	100	0	0	1	66.1	67.1	7	19	55	146	320
PIER G AV	s/o Harbor Plaza	79	88	0	413	35	100	0	0	1	68.1	69.1	10	29	83	207	443
PIER G AV	s/o Harbor Plaza	79	88	0	413	35	100	0	0	1	68.1	69.1	10	29	83	207	443
PIER J WAY	e/o Panorama Dr	299	10	0	57	35	100	0	0	1	65.3	66.3	6	16	46	125	278
PORT ACCESS RD	e/o Ocean Blvd Ramps	634	26	0	62	35	100	0	0	1	69.0	70.0	12	35	99	241	508
PORT ACCESS RD	n/o New Dock St	151	4	0	61	35	100	0	0	1	62.6	63.6	3	9	26	78	179
PORT ACCESS RD	n/o New Dock St	124	0	0	60	35	100	0	0	1	61.7	62.7	3	8	22	66	155
PORT ACCESS RD	s/o Pier J way	336	16	0	69	35	100	0	0	1	66.6	67.6	7	21	61	159	346
PORT ACCESS RD	s/o Pier J way	299	10	0	57	35	100	0	0	1	65.3	66.3	6	16	46	125	278
PORT ACCESS RD	n/o Pier J way	336	16	0	69	35	100	0	0	1	66.6	67.6	7	21	61	159	346
PORT ACCESS RD	s/o Harbor Scenic way	298	17	0	66	35	100	0	0	1	65.9	66.9	6	18	52	140	310
QUEENSWAY DR	s/o Harbor Scenic Dr	375	36	0	59	35	100	0	0	1	66.5	67.5	7	21	60	156	342
S ALAMEDA ST	n/o Wardlow Rd	1892	156	3	34	35	100	0	0	1	72.0	73.0	23	66	188	413	837
S FRIES AVE	s/o Water St	382	31	0	59	35	100	0	0	1	66.6	67.6	7	21	60	157	343
S FRIES AVE	between Harry Bridges Blvd and Water St	186	13	0	68	35	100	0	0	1	64.0	65.0	4	12	35	100	227
S HARBOR SCENIC DR	s/o Shoreline Dr	396	40	0	58	40	100	0	0	1	67.5	68.5	9	26	73	186	400
S HARBOR SCENIC DR	w/o Goldenshore St	840	38	0	47	40	100	0	0	1	69.9	70.9	15	42	120	282	589
S HARBOR SCENIC DR	e/o Goldenshore St	1008	36	0	53	40	100	0	0	1	71.2	72.2	20	56	159	359	735
S HARBOR SCENIC DR	w/o Panorama Dr	795	29	0	49	40	100	0	0	1	69.8	70.8	15	41	118	279	582
S PICO AVE	s/o Embarcadero	345	49	0	62	35	100	0	0	1	66.4	67.4	7	21	58	154	337
S PICO AVE	n/o Harbor Scenic Dr ramp	655	35	0	63	35	100	0	0	1	69.2	70.2	13	37	105	252	531
S PICO AVE	s/o Harbor Scenic Dr ramp	581	36	0	63	35	100	0	0	1	68.7	69.7	11	33	93	228	485
SAN DIEGO FWY	e/o I-110	19292	91	2	6	65	100	0	0	1	83.5	84.5	257	733	2086	3170	5477
SAN DIEGO FWY	e/o Wilmington Blvd	18743	91	2	6	65	100	0	0	1	83.4	84.4	250	713	2031	3099	5364
SAN DIEGO FWY	w/o Santa Fe Ave	19602	90	2	7	65	100	0	0	1	83.6	84.6	264	753	2145	3245	5596
SAN DIEGO FWY	e/o 218th St	21347	91	2	6	65	100	0	0	1	83.9	84.9	278	793	2259	3390	5827
SAN DIEGO FWY	w/o Alameda St	20523	92	2	6	65	100	0	0	1	83.6	84.6	262	747	2127	3222	5560
SAN DIEGO FWY	e/o Wilmington Ave	19242	92	2	6	65	100	0	0	1	83.4	84.4	249	710	2023	3088	5346
SAN DIEGO FWY	w/o Wilmington Ave	19577	92	2	6	65	100	0	0	1	83.5	84.5	255	727	2069	3148	5442
SAN DIEGO FWY	s/o Carson St	18988	92	2	6	65	100	0	0	1	83.4	84.4	249	710	2022	3087	5345
SAN DIEGO FWY	n/o Carson St	18222	91	2	6	65	100	0	0	1	83.3	84.3	246	700	1993	3049	5285
SAN DIEGO FWY	n/o 213th St	18693	91	2	6	65	100	0	0	1	83.4	84.4	251	715	2037	3107	5376
SAN DIEGO FWY	e/o Avalon Blvd	18229	91	2	6	65	100	0	0	1	83.3	84.3	247	702	2001	3059	5300
SAN DIEGO FWY	w/o Avalon Blvd	18833	91	2	6	65	100	0	0	1	83.4	84.4	253	720	2050	3123	5403
SAN GABRIEL AV	n/o PCH	360	20	0	305	45	100	0	0	1	75.0	76.0	43	124	353	704	1368

TERMINAL ISLAND FWY	s/o PCH	1332	59	0	31	55	100	0	0	1	73.4	74.4	31	88	250	526	1045
TERMINAL ISLAND FWY	n/o PCH	1172	61	0	30	55	100	0	0	1	72.7	73.7	27	76	217	468	938
TERMINAL ISLAND FWY	between Off and loop On ramp at PCH	1512	59	0	43	55	100	0	0	1	75.2	76.2	45	127	363	722	1400
TERMINAL ISLAND FWY	s/o PCH off ramp	2246	55	0	50	55	100	0	0	1	77.4	78.4	72	204	582	1077	2024
TERMINAL ISLAND FWY	between Henry Ford Ave and Anaheim St	1777	59	0	43	55	100	0	0	1	75.8	76.8	52	147	418	814	1564
TERMINAL ISLAND FWY	n/o Ocean Blvd	1780	60	0	39	35	100	0	0	1	71.7	72.7	21	61	174	388	790
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2163	54	0	43	35	100	0	0	1	72.9	73.9	28	80	228	486	972
TERMINAL ISLAND FWY	e/o Seaside Ave	5045	79	1	20	35	100	0	0	1	73.7	74.7	33	95	270	562	1110
TERMINAL ISLAND FWY	s/o Willow St	1172	61	0	30	35	100	0	0	1	68.8	69.8	12	34	97	235	498
TERMINAL WAY	w/o Ferry St	817	33	0	31	35	100	0	0	1	67.1	68.1	8	24	68	174	378
TERMINAL WAY	w/o Eaire St	939	43	0	47	35	100	0	0	1	69.6	70.6	14	40	113	268	562
TERMINAL WAY	s/o Navy Way	580	22	0	57	35	100	0	0	1	68.2	69.2	10	30	84	210	449
TERMINAL WAY	s/o Navy Way	394	28	0	60	35	100	0	0	1	66.8	67.8	8	22	63	163	356
TERMINAL WAY	s/o Navy Way	580	22	0	57	35	100	0	0	1	68.2	69.2	10	30	84	210	449
TERMINAL WAY	s/o Navy Way	199	15	0	54	35	100	0	0	1	63.3	64.3	4	11	30	88	202
TERMINAL WAY	s/o Navy Way	205	15	0	55	35	100	0	0	1	63.5	64.5	4	11	32	92	209
TERMINAL WAY	s/o Navy Way	412	25	0	59	35	100	0	0	1	66.9	67.9	8	23	64	166	362
W 9TH ST	e/o Caspian Ave	750	91	1	8	35	100	0	0	1	62.9	63.9	3	10	28	82	188
W 9TH ST	s/o Anaheim St	1164	80	1	15	35	100	0	0	1	66.5	67.5	7	21	59	156	340
W 9TH ST	e/o Santa Fe Ave	1503	89	1	8	35	100	0	0	1	65.8	66.8	6	18	51	137	302
W 9TH ST	w/o Caspian Ave	1090	92	1	7	35	100	0	0	1	64.3	65.3	5	13	37	105	237
W 9TH ST	n/o Pier B St	52	24	0	60	35	100	0	0	1	57.9	58.9	1	3	10	34	84
W 9TH ST	w/o Santa Fe Ave	1298	80	1	17	35	100	0	0	1	67.4	68.4	9	25	72	183	395
W 9TH ST	s/o Pier B St	323	17	0	50	35	100	0	0	1	65.1	66.1	5	15	44	121	269
W 9TH ST	n/o Pier B St	136	18	0	42	35	100	0	0	1	60.6	61.6	2	6	17	55	131
W ANAHEIM ST	e/o Harbor Ave	3004	93	1	7	35	100	0	0	1	68.7	69.7	12	33	95	231	490
W ANAHEIM ST	e/o Santa Fe Ave	3619	82	1	16	35	100	0	0	1	71.8	72.8	22	63	178	396	804
W ANAHEIM ST	w/o Harbor Ave	3272	88	1	12	35	100	0	0	1	70.4	71.4	17	47	134	311	644
W ANAHEIM ST	w/o Seabright Ave	2857	84	1	15	35	100	0	0	1	70.5	71.5	17	48	137	317	656
W ANAHEIM ST	w/o E I St	3200	94	1	9	35	100	0	0	1	69.5	70.5	14	39	111	265	555
W ANAHEIM ST	w/o Figueroa PL	2418	90	1	9	35	100	0	0	1	68.2	69.2	10	29	84	209	446
W ANAHEIM ST	between Wilmington and Neptune Ave	2080	98	1	1	35	100	0	0	1	64.6	65.6	5	14	40	111	249
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	2254	98	1	1	35	100	0	0	1	64.8	65.8	5	15	41	115	257
W ANAHEIM ST	e/o Neptune	2071	99	1	1	35	100	0	0	1	64.4	65.4	5	13	38	108	242
W ANAHEIM ST	between Neptune Ave and Fries Ave	1995	99	1	1	35	100	0	0	1	64.3	65.3	5	13	37	105	237
W ANAHEIM ST	w/o Frigate Ave	2418	98	1	1	35	100	0	0	1	65.1	66.1	5	15	44	121	270
W ANAHEIM ST	e/o Figueroa PL	2676	91	1	8	35	100	0	0	1	68.4	69.4	11	31	88	217	461
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	2757	84	1	16	35	100	0	0	1	70.4	71.4	17	47	135	313	647
W ANAHEIM ST	between Fries Ave and Avalon Blvd	2365	98	1	1	35	100	0	0	1	65.1	66.1	5	16	44	122	271
W ANAHEIM ST	between I-710 SB and NB Ramps	3447	94	1	6	35	100	0	0	1	69.0	70.0	12	35	100	242	512
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	1856	74	1	26	35	100	0	0	1	70.5	71.5	17	48	136	314	650
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2207	75	1	24	35	100	0	0	1	70.9	71.9	18	52	148	337	694
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	1666	75	1	25	35	100	0	0	1	69.8	70.8	15	42	119	281	586
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2234	75	1	23	35	100	0	0	1	70.8	71.8	18	52	147	336	692
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	1793	68	1	30	35	100	0	0	1	70.8	71.8	18	51	146	334	688
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2198	75	1	24	35	100	0	0	1	70.8	71.8	18	52	147	336	692
W I ST	n/o Anaheim St	444	87	1	11	35	100	0	0	1	61.6	62.6	3	7	21	65	153
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	4766	98	1	1	35	100	0	0	1	68.0	69.0	10	29	82	204	437
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	5042	98	1	1	35	100	0	0	1	68.3	69.3	11	31	87	216	460
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	3757	85	1	11	35	100	0	0	1	70.6	71.6	17	49	141	324	669
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	3625	78	1	14	35	100	0	0	1	71.1	72.1	19	54	154	350	719
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	3566	78	1	14	35	100	0	0	1	71.0	72.0	19	54	153	347	712
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	4516	98	1	2	35	100	0	0	1	68.2	69.2	10	30	84	210	448
W PACIFIC COAST HIGHWAY	e/o Figueroa St	4383	98	1	2	35	100	0	0	1	68.0	69.0	10	28	80	202	432
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	4456	98	1	2	35	100	0	0	1	68.2	69.2	10	29	84	209	446
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	3648	84	1	13	35	100	0	0	1	71.1	72.1	19	55	157	354	726
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	3645	80	1	13	35	100	0	0	1	71.0	72.0	19	53	151	344	707
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	3448	84	1	12	35	100	0	0	1	70.4	71.4	17	48	135	313	649
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	4401	88	1	15	35	100	0	0	1	72.3	73.3	24	69	198	432	871
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	238	13	0	52	35	100	0	0	1	64.0	65.0	4	12	35	99	225
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	261	11	0	53	35	100	0	0	1	64.4	65.4	5	13	38	107	241
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	4638	96	1	3	40	100	0	0	1	70.1	71.1	15	44	125	293	610

W SEPULVEDA BLVD	w/o NB I-110 off ramp	4645	96	1	2	40	100	0	0	1	70.0	71.0	15	44	124	292	607
W SEPULVEDA BLVD	w/o Figueroa St	3980	97	1	2	40	100	0	0	1	69.1	70.1	13	36	103	249	524
W SEPULVEDA BLVD	e/o Figueroa St	2367	97	1	2	40	100	0	0	1	66.9	67.9	8	23	65	167	364
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	4652	96	1	3	40	100	0	0	1	70.1	71.1	16	44	126	296	614
W WATER ST	between Fries Ave and Avalon Blvd	183	56	0	43	35	100	0	0	1	62.2	63.2	3	8	24	73	169
W WILLOW ST	between NB and SB Terminal Island Fwy	3794	88	1	8	35	100	0	0	1	69.9	70.9	15	43	122	286	596
W WILLOW ST	between Terminal Island Fwy and Santa Fe	4104	95	1	2	35	100	0	0	1	68.0	69.0	10	29	82	204	437
W WILLOW ST	between Santa Fe Ave and Easy Ave	3714	95	1	3	35	100	0	0	1	67.8	68.8	10	27	78	196	421
W WILLOW ST	e/o Easy Ave	5183	96	1	2	35	100	0	0	1	68.9	69.9	12	35	99	239	506
W WILLOW ST	w/o SB I-710 ramps	4389	96	1	2	35	100	0	0	1	68.0	69.0	10	28	81	202	433
W WILLOW ST	w/o NB I-710 on ramp	4692	96	1	2	35	100	0	0	1	68.4	69.4	11	31	88	218	464
SAN DIEGO FWY	SB e/o Wilmington Ave	20109	93	2	5	21	100	0	0	1	74.0	75.0	35	99	283	584	1152
SAN DIEGO FWY	SB w/o Wilmington Ave	20671	92	2	6	18	100	0	0	1	74.3	75.3	38	108	306	625	1226
SAN DIEGO FWY	SB s/o Carson St	19487	92	2	6	23	100	0	0	1	74.2	75.2	37	105	300	614	1207
SAN DIEGO FWY	NB n/o Carson St	17280	91	2	6	31	100	0	0	1	75.3	76.3	46	132	376	744	1439
SAN DIEGO FWY	NB n/o 213th St	18218	91	2	6	28	100	0	0	1	74.8	75.8	42	119	340	682	1329
SAN DIEGO FWY	NB e/o Avalon Blvd	17281	91	2	7	31	100	0	0	1	75.4	76.4	47	133	380	750	1450
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB w/o Avalon Blvd	18975	91	2	6	33	100	0	0	1	76.0	77.0	54	152	434	840	1609
SAN DIEGO FWY	SB e/o Avalon Blvd	18619	91	2	7	27	100	0	0	1	74.8	75.8	42	119	338	679	1323
SAN DIEGO FWY	NB w/o Wilmington Ave	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	NB e/o 218th St	20319	91	2	7	25	100	0	0	1	75.3	76.3	46	130	372	736	1425
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB s/o Carson St	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	SB n/o Carson St	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN GABRIEL AV	n/o PCH	225	20	0	80	30	100	0	0	1	65.0	66.0	5	15	43	119	266
TERMINAL ISLAND FWY	s/o PCH	2810	63	0	37	30	100	0	0	1	72.8	73.8	27	78	222	476	954
TERMINAL ISLAND FWY	n/o PCH	2465	67	0	33	30	100	0	0	1	71.8	72.8	22	63	181	400	812
TERMINAL ISLAND FWY	n/o Ocean Blvd	3502	65	0	35	30	100	0	0	1	73.6	74.6	32	91	259	543	1077
TERMINAL ISLAND FWY	NB s/o PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	SB n/o PCH	1125	64	0	36	49	100	0	0	1	72.1	73.1	23	67	190	418	845
TERMINAL ISLAND FWY	NB between Off and loop On ramp at PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	NB s/o PCH off ramp	2176	49	0	51	48	100	0	0	1	76.0	77.0	53	150	428	830	1593
TERMINAL ISLAND FWY	SB n/o Anaheim St	1120	72	0	28	49	100	0	0	1	71.2	72.2	19	55	158	357	732
TERMINAL ISLAND FWY	NB between Henry Ford Ave and Anaheim St	1726	55	0	45	49	100	0	0	1	74.6	75.6	40	114	325	658	1285
TERMINAL ISLAND FWY	NB n/o Ocean Blvd	1908	61	0	38	39	100	0	0	1	72.6	73.6	26	75	213	460	924
TERMINAL ISLAND FWY	SB n/o Ocean Blvd	1594	69	0	30	39	100	0	0	1	71.0	72.0	19	53	152	346	710
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2283	53	0	47	39	100	0	0	1	74.1	75.1	36	102	290	596	1174
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	e/o Seaside Ave	4985	80	1	19	27	100	0	0	1	72.5	73.5	26	73	208	451	908
TERMINAL ISLAND FWY	SB s/o Anaheim Way	1814	65	0	35	49	100	0	0	1	74.0	75.0	35	101	287	592	1166
TERMINAL ISLAND FWY	NB s/o Willow St	1353	66	0	33	25	100	0	0	1	68.9	69.9	12	34	97	237	501
TERMINAL ISLAND FWY	SB s/o PCH on ramp	1891	65	0	34	48	100	0	0	1	74.0	75.0	35	101	287	591	1165
TERMINAL ISLAND FWY	SB s/o PCH	1284	61	0	39	49	100	0	0	1	72.9	73.9	28	79	225	481	962
TERMINAL ISLAND FWY	NB n/o PCH	1340	69	0	30	49	100	0	0	1	72.2	73.2	24	69	196	428	864
TERMINAL ISLAND FWY	SB between loop Off and On ramp at PCH	1284	61	0	38	49	100	0	0	1	72.8	73.8	28	79	224	479	960
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2310	53	0	47	39	100	0	0	1	74.2	75.2	36	104	296	607	1194
TERMINAL WAY	w/o Ferry St	2434	58	0	42	24	100	0	0	1	72.4	73.4	25	71	203	442	890
TERMINAL WAY	w/o Eaire St	1905	54	0	46	33	100	0	0	1	72.3	73.3	25	70	199	434	875
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	743	26	0	74	30	100	0	0	1	69.8	70.8	14	41	118	278	581
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	542	19	0	81	31	100	0	0	1	68.9	69.9	12	34	98	238	504
TERMINAL WAY	s/o Navy Way	549	18	0	82	31	100	0	0	1	69.0	70.0	12	35	99	241	510
TERMINAL WAY	s/o Navy Way	884	26	0	74	29	100	0	0	1	70.5	71.5	17	48	137	316	653
W 9TH ST	e/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	85	195
W 9TH ST	s/o Anaheim St	1537	84	1	15	27	100	0	0	1	66.5	67.5	7	21	60	157	342
W 9TH ST	e/o Santa Fe Ave	1809	91	1	8	22	100	0	0	1	64.7	65.7	5	14	41	114	256
W 9TH ST	w/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	86	196
W 9TH ST	n/o Pier B St	96	34	0	66	38	100	0	0	1	61.6	62.6	3	7	21	65	153
W 9TH ST	w/o Santa Fe Ave	1839	83	1	17	20	100	0	0	1	67.5	68.5	9	26	73	187	403

W 9TH ST	s/o Pier B St	856	21	0	79	36	100	0	0	1	71.4	72.4	20	58	164	369	754
W 9TH ST	n/o Pier B St	315	28	0	72	36	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Harbor Ave	3311	93	1	6	26	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Santa Fe Ave	4489	82	1	17	24	100	0	0	1	71.4	72.4	20	58	165	371	757
W ANAHEIM ST	w/o Harbor Ave	3937	88	1	11	25	100	0	0	1	69.3	70.3	13	38	107	257	540
W ANAHEIM ST	w/o Seabright Ave	3538	83	1	16	26	100	0	0	1	70.2	71.2	16	45	129	301	625
W ANAHEIM ST	w/o E I St	4550	92	1	7	24	100	0	0	1	68.2	69.2	10	30	85	211	450
W ANAHEIM ST	w/o Figueroa PL	3972	91	1	8	24	100	0	0	1	68.4	69.4	11	31	88	218	464
W ANAHEIM ST	between Wilmington and Neptune Ave	3181	98	1	1	26	100	0	0	1	63.4	64.4	4	11	31	90	206
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	3602	98	1	1	25	100	0	0	1	63.6	64.6	4	11	32	93	212
W ANAHEIM ST	e/o Neptune	3195	98	1	1	26	100	0	0	1	63.2	64.2	4	10	30	87	199
W ANAHEIM ST	between Neptune Ave and Fries Ave	3063	98	1	1	26	100	0	0	1	63.3	64.3	4	11	30	88	201
W ANAHEIM ST	w/o Frigate Ave	3691	98	1	1	24	100	0	0	1	63.5	64.5	4	11	32	91	208
W ANAHEIM ST	e/o Figueroa PL	4409	92	1	8	23	100	0	0	1	68.4	69.4	11	31	89	219	467
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	3407	83	1	16	26	100	0	0	1	70.1	71.1	15	44	125	292	608
W ANAHEIM ST	between Fries Ave and Avalon Blvd	3641	98	1	1	25	100	0	0	1	63.8	64.8	4	12	34	97	219
W ANAHEIM ST	between I-710 SB and NB Ramps	4032	94	1	5	23	100	0	0	1	66.9	67.9	8	23	64	167	362
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2947	77	1	23	28	100	0	0	1	71.0	72.0	19	53	151	344	707
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	2409	78	1	21	30	100	0	0	1	70.0	71.0	15	44	124	291	606
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2917	78	1	21	29	100	0	0	1	70.7	71.7	18	50	143	328	677
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2714	72	1	28	29	100	0	0	1	71.5	72.5	21	59	167	375	765
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W I ST	n/o Anaheim St	875	87	1	12	26	100	0	0	1	63.1	64.1	4	10	29	85	196
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	8001	98	1	1	25	100	0	0	1	67.1	68.1	8	23	67	172	373
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	8552	98	1	1	24	100	0	0	1	67.4	68.4	9	25	71	181	392
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	5894	85	1	14	23	100	0	0	1	71.8	72.8	22	63	180	399	811
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	5846	80	1	20	19	100	0	0	1	73.4	74.4	31	88	250	527	1047
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	5737	80	1	19	19	100	0	0	1	73.2	74.2	30	85	242	512	1020
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	6514	97	1	2	27	100	0	0	1	67.8	68.8	10	27	78	196	420
W PACIFIC COAST HIGHWAY	e/o Figueroa St	6855	97	1	2	26	100	0	0	1	67.6	68.6	9	26	74	189	407
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	6425	97	1	2	29	100	0	0	1	68.3	69.3	11	30	86	214	456
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	5399	86	1	13	28	100	0	0	1	71.5	72.5	21	60	170	379	774
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	6025	81	1	18	16	100	0	0	1	73.6	74.6	32	92	261	547	1083
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	5307	84	1	15	21	100	0	0	1	71.7	72.7	22	61	175	389	791
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	5717	90	1	9	21	100	0	0	1	70.2	71.2	16	45	129	301	625
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	785	19	0	81	30	100	0	0	1	70.4	71.4	17	47	135	312	647
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	963	15	0	85	24	100	0	0	1	71.3	72.3	20	57	161	363	743
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	7322	96	1	3	24	100	0	0	1	67.7	68.7	9	27	76	192	413
W SEPULVEDA BLVD	w/o NB I-110 off ramp	7449	96	1	3	27	100	0	0	1	68.4	69.4	11	31	88	217	462
W SEPULVEDA BLVD	w/o Figueroa St	6324	97	1	2	29	100	0	0	1	68.0	69.0	10	28	80	202	432
W SEPULVEDA BLVD	e/o Figueroa St	3739	97	1	2	29	100	0	0	1	65.7	66.7	6	18	50	136	300
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	7414	96	1	3	23	100	0	0	1	67.8	68.8	10	27	77	195	419
W WATER ST	between Fries Ave and Avalon Blvd	343	56	0	44	30	100	0	0	1	64.4	65.4	5	13	38	108	242
W WILLOW ST	between NB and SB Terminal Island Fwy	5909	91	1	8	21	100	0	0	1	69.9	70.9	15	43	121	285	595
W WILLOW ST	between Terminal Island Fwy and Santa Fe	6681	96	1	2	16	100	0	0	1	66.7	67.7	8	22	61	160	350
W WILLOW ST	between Santa Fe Ave and Easy Ave	6247	96	1	3	19	100	0	0	1	66.7	67.7	8	22	62	163	354
W WILLOW ST	e/o Easy Ave	8543	97	1	2	11	100	0	0	1	68.7	69.7	11	33	93	228	484
W WILLOW ST	w/o SB I-710 ramps	6855	97	1	2	16	100	0	0	1	65.9	66.9	6	18	53	141	310
W WILLOW ST	w/o NB I-710 on ramp	7244	97	1	2	14	100	0	0	1	66.6	67.6	7	21	60	158	345

FHWA TRAFFIC NOISE CALCULATOR

SCIG 2023 PROJECT CONDITIONS TRAFFIC

ROADWAY	Segment	Peak Hour Volume	Vehicle Distribution %Auto	%MT	%HT	Vehicle Speed mph	Receiver Distance CL, ft	Grade % NL	FL	CNEL Correction	PREDICTED TRAFFIC NOISE LEVEL, dBA Leq @ Rec.	CNEL @ Rec.	DISTANCE TO CNEL CONTOURS 80	75	70	65	60
1ST ST	e/o East RD	664	9	0	105	25	100	0	0	1	74.9	75.9	43	121	346	692	1347
ACCESS RD	e/o Ferry St	959	58	0	48	30	100	0	0	1	69.2	70.2	13	36	104	250	526
ALAMEDA ST	n/o Anaheim St	1679	74	1	26	40	100	0	0	1	70.8	71.8	18	52	147	336	692
ALAMEDA ST	w/o Eubank Ave	2482	58	0	42	40	100	0	0	1	74.2	75.2	37	105	300	614	1206
ALAMEDA ST	s/o PCH	2002	63	1	36	40	100	0	0	1	72.8	73.8	27	78	223	478	957
ALAMEDA ST	s/o Anaheim St	3923	71	1	28	40	100	0	0	1	74.9	75.9	42	120	341	684	1332
CARRACK AVE	e/o Pier B St	222	0	0	130	35	100	0	0	1	67.5	68.5	9	26	74	187	403
E 223RD ST	w/o I-405 Off ramps	3343	83	1	16	35	100	0	0	1	71.3	72.3	20	57	162	364	745
E ANAHEIM ST	between Avalon Blvd and Broad Ave	2218	98	1	1	35	100	0	0	1	64.4	65.4	5	14	39	108	243
E ANAHEIM ST	between Eubank Ave and Sanford St	2302	99	1	1	35	100	0	0	1	64.5	65.5	5	14	39	109	245
E ANAHEIM ST	between Sanford Ave and Sanford St	2376	99	1	1	35	100	0	0	1	64.6	65.6	5	14	40	111	250
E ANAHEIM ST	between Anaheim and Henry Ford	4578	85	1	14	35	100	0	0	1	72.3	73.3	25	71	201	438	884
E ANAHEIM ST	e/o Henry Ford Ave	3882	85	1	14	45	100	0	0	1	73.8	74.8	33	95	271	564	1114
E ANAHEIM ST	w/o E I St	3186	88	1	11	45	100	0	0	1	72.3	73.3	25	70	199	435	877
E ANAHEIM ST	e/o Sanford Ave	2334	99	1	1	45	100	0	0	1	67.7	68.7	9	26	75	191	411
E ANAHEIM ST	w/o Anaheim Way	3882	85	1	14	45	100	0	0	1	73.8	74.8	33	95	271	564	1114
E ANAHEIM ST	between Henry Ford Ave and Terminal Isla	3882	85	1	14	45	100	0	0	1	73.8	74.8	33	95	271	564	1114
E HARRY BRIDGES BLVD	e/o Avalon Blvd	2135	60	0	40	35	100	0	0	1	72.6	73.6	26	74	211	457	918
E I ST	between Terminal Island Fwy and Anaheim	1247	54	0	46	35	100	0	0	1	70.8	71.8	18	51	145	332	684
E OPP ST	w/o Farragut Ave	231	126	0	12	35	100	0	0	1	59.2	60.2	2	5	13	43	104
E SEPULVEDA BLVD	e/o Alameda St	3027	95	2	4	40	100	0	0	1	68.8	69.8	12	34	96	235	497
E SEPULVEDA BLVD	w/o Dolores St	2932	98	1	2	40	100	0	0	1	67.6	68.6	9	26	75	190	409
E SEPULVEDA BLVD	w/o Wilmington Ave	3767	96	1	3	40	100	0	0	1	69.3	70.3	13	38	107	257	541
E SEPULVEDA BLVD	e/o Wilmington Ave	2785	96	1	3	40	100	0	0	1	68.0	69.0	10	28	81	202	433
E SEPULVEDA BLVD	e/o Dolores St	2634	97	1	2	40	100	0	0	1	67.2	68.2	9	24	69	177	383
E SEPULVEDA BLVD	w/o Avalon Blvd	2509	97	1	2	40	100	0	0	1	67.2	68.2	8	24	68	175	379
EAST RD	n/o 1st St	319	10	0	104	26	100	0	0	1	67.3	68.3	9	25	71	181	391
EAST RD	s/o 1st St	314	10	0	104	37	100	0	0	1	68.4	69.4	11	31	88	217	463
FARRAGUT AVE	Between Terminal Island Fwy SB ramps and	1032	55	0	45	35	100	0	0	1	69.9	70.9	15	42	121	284	593
FARRAGUT AVE	s/o E OPP St	229	140	0	13	35	100	0	0	1	59.7	60.7	2	5	14	47	112
FERRY ST	between Seaside Ave and Access Rd	967	54	0	46	25	100	0	0	1	68.7	69.7	12	33	94	230	487
FERRY ST	between Terminal Way and Pitchard St	1717	49	0	52	25	100	0	0	1	71.7	72.7	22	62	177	393	799
FIGUEROA ST	n/o Anaheim St	1137	89	1	10	35	100	0	0	1	65.2	66.2	6	16	45	123	274
FIGUEROA ST	n/o PCH	2164	98	1	3	35	100	0	0	1	65.8	66.8	6	18	51	138	304
HARBOR FWY	n/o PCH off Ramp	13851	90	1	15	65	100	0	0	1	83.7	84.7	267	762	2169	3276	5645
HARBOR FWY	s/o Sepulveda Blvd	13264	90	1	15	65	100	0	0	1	83.6	84.6	262	746	2124	3218	5554
HARBOR FWY	n/o Sepulveda Blvd	13902	90	1	15	65	100	0	0	1	83.7	84.7	269	765	2179	3288	5665
HARBOR FWY	n/o 223rd St	14853	91	1	13	65	100	0	0	1	83.8	84.8	272	775	2206	3323	5721
HARBOR FWY	n/o 220th St	15531	92	1	13	65	100	0	0	1	83.9	84.9	279	794	2262	3394	5832
HARBOR FWY	n/o Carson St	16570	92	1	12	65	100	0	0	1	84.0	85.0	287	818	2329	3479	5967
HARBOR FWY	n/o Redondo Beach Blvd	19484	104	2	7	65	100	0	0	1	83.9	84.9	279	793	2259	3391	5828
HARBOR FWY	between 135 th St and Rosecrans Ave	19193	103	2	6	65	100	0	0	1	83.7	84.7	270	770	2192	3305	5693
HARBOR FWY	n/o 135th St	18881	102	2	6	65	100	0	0	1	83.6	84.6	264	753	2144	3244	5594
HARBOR FWY	n/o Alondra	18878	105	2	7	65	100	0	0	1	83.8	84.8	276	785	2235	3360	5779
HARBOR FWY	between Del Amo Blvd and Torrance Blv	16183	92	1	12	65	100	0	0	1	83.9	84.9	281	801	2281	3418	5871
HARBOR FWY	between 168th and Alondra	19734	105	2	7	65	100	0	0	1	84.1	85.1	290	825	2349	3505	6009
HARBOR FWY	n/o Del Amo Blvd	17486	93	1	11	65	100	0	0	1	84.2	85.2	294	837	2384	3549	6078
HARBOR FWY	n/o I-405	14721	97	1	11	65	100	0	0	1	83.4	84.4	249	709	2018	3081	5336
HARBOR FWY	s/o I-405	14688	97	1	11	65	100	0	0	1	83.3	84.3	248	705	2009	3070	5318
HARBOR FWY	s/o 182nd St	16271	102	2	9	65	100	0	0	1	83.6	84.6	265	754	2147	3247	5600
HARBOR FWY	between Artesia Blvd and 168th	16526	105	2	8	65	100	0	0	1	83.5	84.5	255	726	2069	3147	5440
HARBOR FWY	s/o SR-91	16704	101	2	7	65	100	0	0	1	83.3	84.3	247	704	2006	3066	5312
HARBOR FWY	s/o PCH off Ramp	12031	88	1	18	65	100	0	0	1	83.5	84.5	257	733	2086	3170	5477
HARBOR FWY	n/o El Segundo Blvd	18917	100	2	6	65	100	0	0	1	83.6	84.6	264	752	2141	3239	5588
HARBOR FWY	s/o El Segundo Blvd	18622	106	2	7	65	100	0	0	1	83.8	84.8	272	775	2208	3325	5724
HARBOR FWY	n/o Anaheim St	12765	100	1	18	65	100	0	0	1	84.0	85.0	286	814	2319	3467	5948

HARBOR FWY	s/o 120th St	18573	102	2	7	65	100	0	0	1	83.6	84.6	264	751	2139	3238	5585
HARBOR FWY	n/o 120th St	15609	99	2	7	65	100	0	0	1	82.9	83.9	224	639	1819	2823	4922
HARBOR FWY	n/o I-105	17620	103	2	7	65	100	0	0	1	83.4	84.4	253	721	2053	3127	5409
HARBOR FWY	n/o 108th St	20683	101	2	6	65	100	0	0	1	83.9	84.9	280	798	2272	3406	5853
HARBOR FWY	s/o 223rd St	15132	91	1	14	65	100	0	0	1	83.9	84.9	279	795	2265	3398	5839
HARBOR FWY	s/o 190th St	14898	92	1	10	65	100	0	0	1	83.2	84.2	242	688	1960	3006	5216
HARBOR PLZ	between Pier F Ave and Pico Ave	715	23	0	86	40	100	0	0	1	71.7	72.7	21	61	174	388	790
HARBOR SCENIC DR	w/o Goldenshore St	1484	34	0	67	40	100	0	0	1	73.8	74.8	34	97	275	571	1127
HARBOR SCENIC DR	s/o Shoreline Dr	2103	21	0	79	40	100	0	0	1	76.0	77.0	53	152	432	837	1604
HARBOR SCENIC DR	n/o Shoreline Dr	2620	18	0	82	40	100	0	0	1	77.1	78.1	67	191	544	1016	1918
HARBOR SCENIC WAY	e/o Queens Hwy	1039	23	0	78	40	100	0	0	1	72.9	73.9	28	79	225	481	964
HARBOR SCENIC WAY	e/o Port Access Rd	1052	23	0	78	40	100	0	0	1	72.9	73.9	28	80	228	487	975
HARBOR SCENIC WAY	w/o Port Access Rd	1052	23	0	78	40	100	0	0	1	72.9	73.9	28	80	228	487	975
JOHN S GIBSON BLVD	n/o I-110 Ramps	2161	75	0	24	35	100	0	0	1	70.8	71.8	18	51	146	334	687
LONG BEACH FWY	n/o Imperial Hwy	18331	93	2	16	65	100	0	0	1	85.2	86.2	369	1051	2993	4302	7258
LONG BEACH FWY	s/o Imperial Hwy	20154	94	2	15	65	100	0	0	1	85.5	86.5	394	1121	3193	4543	7633
LONG BEACH FWY	n/o I-105	17156	91	1	17	65	100	0	0	1	85.1	86.1	358	1019	2903	4192	7086
LONG BEACH FWY	s/o I-105	16579	90	1	17	65	100	0	0	1	84.9	85.9	346	985	2805	4072	6900
LONG BEACH FWY	n/o Rosecrans Ave	16952	91	1	17	65	100	0	0	1	85.1	86.1	357	1016	2893	4180	7068
LONG BEACH FWY	s/o Rosecrans Ave	25086	92	2	18	65	100	0	0	1	86.9	87.9	519	1479	4211	5743	9473
LONG BEACH FWY	n/o Alondra	24787	92	2	18	65	100	0	0	1	86.9	87.9	520	1482	4221	5753	9489
LONG BEACH FWY	between Alondra and Rosecrans	25080	92	2	18	65	100	0	0	1	86.9	87.9	520	1480	4215	5747	9479
LONG BEACH FWY	s/o Alondra	24607	91	1	18	65	100	0	0	1	86.8	87.8	515	1465	4174	5699	9407
LONG BEACH FWY	n/o SR-91	19565	84	1	21	65	100	0	0	1	86.1	87.1	440	1254	3570	4994	8328
LONG BEACH FWY	n/o Artesia Blvd	14298	78	1	25	65	100	0	0	1	85.2	86.2	368	1048	2986	4293	7244
LONG BEACH FWY	s/o Artesia Blvd	18012	74	1	27	65	100	0	0	1	86.4	87.4	475	1354	3856	5330	8844
LONG BEACH FWY	n/o Long Beach Blvd	19439	77	1	27	65	100	0	0	1	86.8	87.8	512	1458	4153	5676	9372
LONG BEACH FWY	s/o Long Beach Blvd	17842	74	1	30	65	100	0	0	1	86.7	87.7	506	1441	4105	5619	9285
LONG BEACH FWY	n/o Del Amo Blvd	18678	75	1	29	65	100	0	0	1	86.8	87.8	513	1460	4158	5682	9380
LONG BEACH FWY	s/o Del Amo Blvd Off ramp	18280	74	1	29	65	100	0	0	1	86.7	87.7	504	1436	4091	5603	9261
LONG BEACH FWY	s/o Del Amo Blvd	19247	76	1	28	65	100	0	0	1	86.9	87.9	520	1480	4214	5746	9478
LONG BEACH FWY	n/o Wardlow Rd	11769	62	1	39	65	100	0	0	1	85.6	86.6	402	1145	3260	4624	7758
LONG BEACH FWY	s/o Wardlow Rd	14606	69	1	34	65	100	0	0	1	86.2	87.2	451	1285	3659	5098	8489
LONG BEACH FWY	n/o Willow St	14800	69	1	33	65	100	0	0	1	86.2	87.2	448	1277	3636	5072	8448
LONG BEACH FWY	s/o Willow St	13774	66	1	34	65	100	0	0	1	86.0	87.0	429	1220	3476	4882	8156
LONG BEACH FWY	between off/of namps at Willow St	13804	67	1	35	65	100	0	0	1	86.1	87.1	439	1249	3558	4980	8306
LONG BEACH FWY	s/o Anaheim St	12479	75	1	34	65	100	0	0	1	85.5	86.5	393	1118	3184	4532	7616
LONG BEACH FWY	s/o PCH	12479	75	1	34	65	100	0	0	1	85.5	86.5	393	1118	3184	4532	7616
LONG BEACH FWY	n/o Anahiem St	12312	66	1	31	65	100	0	0	1	85.1	86.1	361	1029	2931	4226	7139
LONG BEACH FWY	s/o Firestone Blvd	20261	94	2	15	65	100	0	0	1	85.4	86.4	384	1093	3114	4448	7485
LONG BEACH FWY	s/o 9th St	4814	20	0	80	65	100	0	0	1	84.3	85.3	306	870	2478	3667	6264
LONG BEACH FWY	n/o Long Beach Blvd	17824	73	1	27	65	100	0	0	1	86.3	87.3	465	1324	3771	5231	8692
LONG BEACH FWY	n/o 9th St	5561	19	0	81	65	100	0	0	1	85.0	86.0	349	995	2833	4106	6953
LONG BEACH FWY	n/o 10th St	8107	52	0	48	65	100	0	0	1	84.7	85.7	331	943	2686	3925	6670
LONG BEACH FWY	s/o On ramp at Del Amo Blvd	18719	75	1	29	65	100	0	0	1	86.8	87.8	515	1465	4174	5699	9407
LONG BEACH FWY	s/o Willow St	13134	65	1	37	65	100	0	0	1	86.0	87.0	433	1233	3513	4926	8223
LONG BEACH FWY	n/o Anaheim St	12849	78	1	38	65	100	0	0	1	86.1	87.1	440	1253	3569	4992	8326
N HENRY FORD AVE	n/o Terminal Island fwy	1192	64	0	36	40	100	0	0	1	70.5	71.5	17	48	136	315	652
N HENRY FORD AVE	n/o Anaheim St	471	36	0	63	40	100	0	0	1	68.6	69.6	11	32	93	227	482
N SEASIDE AVE	e/o Navy Way	6836	66	0	34	55	100	0	0	1	80.9	81.9	149	423	1206	1993	3571
N SEASIDE AVE	e/o Access Rd ramp	3546	72	0	28	55	100	0	0	1	77.4	78.4	71	203	578	1070	2012
N SEASIDE AVE	w/o Navy Way	7081	69	0	31	55	100	0	0	1	80.7	81.7	144	409	1166	1937	3477
N SEASIDE AVE	e/o Ferry St	967	54	0	46	55	100	0	0	1	73.4	74.4	31	88	251	528	1050
N SEASIDE AVE	e/o Navy Way ramp	7753	61	0	39	55	100	0	0	1	81.9	82.9	182	518	1476	2365	4181
N SEASIDE AVE	e/o Navy Way	6836	66	0	34	55	100	0	0	1	80.9	81.9	149	423	1206	1993	3571
NAVY WAY	s/o Reeves Ave	2043	26	0	77	45	100	0	0	1	76.7	77.7	61	175	498	944	1792
NAVY WAY	s/o Terminal Way	2451	24	0	77	45	100	0	0	1	77.4	78.4	72	206	586	1082	2033
NEW DOCK ST	w/o Henry Ford Ave	911	27	0	73	45	100	0	0	1	73.0	74.0	28	81	230	490	979
NEW DOCK ST	e/o Henry Ford Ave	1723	32	0	68	45	100	0	0	1	75.5	76.5	48	136	387	762	1471
NEW DOCK ST	w/o SB off ramp Terminal Island Fwy	1723	32	0	68	45	100	0	0	1	75.5	76.5	48	136	387	762	1471
NEW DOCK ST	w/o NB on ramp Terminal Island Fwy	1420	28	0	72	45	100	0	0	1	74.8	75.8	42	118	337	678	1321

NEW DOCK ST	between Terminal Island Fwy SB and NB Ra	1420	28	0	72	45	100	0	0	1	74.8	75.8	42	118	337	678	1321
NEW DOCK ST	e/o NB on ramp Terminal Island Fwy	789	0	0	100	45	100	0	0	1	73.6	74.6	32	91	260	545	1080
PACIFIC COAST HIGHWAY	between Avalon Blvd and Eubank Ave	3613	95	1	4	45	100	0	0	1	70.9	71.9	18	52	147	337	693
PACIFIC COAST HIGHWAY	between Watson Ave and Eubank Ave	3560	95	1	4	45	100	0	0	1	70.8	71.8	18	51	146	335	689
PACIFIC COAST HIGHWAY	w/o Alameda St	3539	92	1	7	45	100	0	0	1	71.7	72.7	22	62	177	393	800
PACIFIC COAST HIGHWAY	w/o East Rd	3420	94	1	5	45	100	0	0	1	70.9	71.9	18	52	149	339	697
PACIFIC COAST HIGHWAY	w/o East Rd	3291	94	1	5	45	100	0	0	1	70.8	71.8	18	51	145	331	683
PACIFIC COAST HIGHWAY	between Watson Ave and Blinn Ave	3407	95	1	4	45	100	0	0	1	70.6	71.6	17	50	141	324	669
PICO AVE	s/o Ocean Blvd	956	50	0	67	35	100	0	0	1	71.1	72.1	19	55	157	355	727
PICO AVE	n/o Ocean Blvd	1245	37	0	68	35	100	0	0	1	72.3	73.3	25	71	201	438	883
PICO AVE	n/o Pier C St	1823	39	0	64	35	100	0	0	1	73.7	74.7	33	95	269	561	1109
PICO AVE	s/o Pier C St	1492	39	0	63	35	100	0	0	1	72.8	73.8	27	78	222	476	954
PICO AVE	n/o Pier DSt	1490	39	0	63	35	100	0	0	1	72.8	73.8	27	78	222	476	954
PIER A WAY	e/o Henry Ford Ave	341	32	0	68	35	100	0	0	1	66.7	67.7	8	22	62	161	351
PIER A WAY	e/o Henry Ford Ave	464	36	0	64	35	100	0	0	1	67.8	68.8	10	27	78	196	421
PIER A WAY	e/o Henry Ford Ave	513	32	0	68	35	100	0	0	1	68.5	69.5	11	31	89	220	468
PIER A WAY	between Terminal Island Fwy and Henry Fo	57	4	0	243	35	100	0	0	1	64.4	65.4	5	13	38	107	240
PIER A WAY	n/o Terminal Island Fwy	245	38	0	62	35	100	0	0	1	64.9	65.9	5	15	42	117	261
PIER A WAY	e/o Henry Ford Ave	222	43	0	57	35	100	0	0	1	64.1	65.1	4	13	36	102	231
PIER A WAY	e/o Henry Ford Ave	222	33	0	67	35	100	0	0	1	64.8	65.8	5	15	41	115	257
PIER B ST	s/o 9th St	713	37	0	63	35	100	0	0	1	69.6	70.6	14	40	113	268	562
PIER B ST	w/o Edison Ave	1023	63	0	37	35	100	0	0	1	69.1	70.1	13	36	102	246	518
PIER B ST	n/o Pier A way	374	29	0	71	35	100	0	0	1	67.3	68.3	9	25	70	179	387
PIER C ST	w/o Pier B St	417	35	0	78	35	100	0	0	1	68.2	69.2	10	29	84	209	446
PIER C ST	w/o Pier B St	346	17	0	84	35	100	0	0	1	67.6	68.6	9	26	75	190	409
PIER D AVE	s/o Pier D St	260	75	0	25	35	100	0	0	1	61.7	62.7	3	8	22	66	155
PIER D ST	w/o I-710	513	40	0	60	35	100	0	0	1	68.0	69.0	10	28	81	202	432
PIER F AVE	s/o Harbor Plaza	677	17	0	87	35	100	0	0	1	70.7	71.7	18	50	142	327	674
PIER G AV	s/o Harbor Plaza	1044	2	0	109	35	100	0	0	1	73.5	74.5	32	90	257	539	1070
PIER G AV	s/o Harbor Plaza	1044	2	0	109	35	100	0	0	1	73.5	74.5	32	90	257	539	1070
PIER J WAY	e/o Panorama Dr	731	39	0	61	35	100	0	0	1	69.6	70.6	14	39	112	268	561
PORT ACCESS RD	e/o Ocean Blvd Ramps	2235	27	0	73	35	100	0	0	1	75.1	76.1	44	127	361	718	1393
PORT ACCESS RD	n/o New Dock St	674	19	0	83	35	100	0	0	1	70.4	71.4	17	48	135	313	649
PORT ACCESS RD	n/o New Dock St	629	17	0	84	35	100	0	0	1	70.2	71.2	16	45	128	299	621
PORT ACCESS RD	s/o Pier J way	1043	23	0	77	35	100	0	0	1	72.1	73.1	23	67	190	417	844
PORT ACCESS RD	s/o Pier J way	731	39	0	61	35	100	0	0	1	69.6	70.6	14	39	112	268	561
PORT ACCESS RD	n/o Pier J way	1043	23	0	77	35	100	0	0	1	72.1	73.1	23	67	190	417	844
PORT ACCESS RD	s/o Harbor Scenic way	1028	23	0	77	35	100	0	0	1	72.0	73.0	23	65	186	410	831
QUEENSWAY DR	s/o Harbor Scenic Dr	613	14	0	94	35	100	0	0	1	70.6	71.6	17	49	139	321	662
S ALAMEDA ST	n/o Wardlow Rd	1989	58	1	41	35	100	0	0	1	72.4	73.4	25	72	204	443	893
S FRIES AVE	s/o Water St	844	25	0	86	35	100	0	0	1	71.6	72.6	21	60	172	383	780
S FRIES AVE	between Harry Bridges Blvd and Water St	526	20	0	101	35	100	0	0	1	70.2	71.2	16	45	129	301	624
S HARBOR SCENIC DR	s/o Shoreline Dr	625	18	0	88	40	100	0	0	1	71.2	72.2	19	55	158	357	732
S HARBOR SCENIC DR	w/o Goldenshore St	1669	29	0	71	40	100	0	0	1	74.6	75.6	40	113	322	652	1275
S HARBOR SCENIC DR	e/o Goldenshore St	2171	20	0	80	40	100	0	0	1	76.2	77.2	56	159	451	868	1659
S HARBOR SCENIC DR	w/o Panorama Dr	2123	41	0	59	40	100	0	0	1	74.9	75.9	42	121	343	688	1340
S PICO AVE	s/o Embarcadero	884	32	0	83	35	100	0	0	1	71.7	72.7	22	62	176	390	794
S PICO AVE	n/o Harbor Scenic Dr ramp	2015	15	0	91	35	100	0	0	1	75.6	76.6	49	140	400	784	1510
S PICO AVE	s/o Harbor Scenic Dr ramp	1874	14	0	94	35	100	0	0	1	75.4	76.4	47	134	383	755	1459
SAN DIEGO FWY	e/o I-110	22050	105	3	8	65	100	0	0	1	85.0	86.0	348	992	2824	4095	6936
SAN DIEGO FWY	e/o Wilmington Blvd	21158	103	3	8	65	100	0	0	1	84.7	85.7	330	941	2680	3917	6658
SAN DIEGO FWY	w/o Santa Fe Ave	22751	96	3	8	65	100	0	0	1	84.9	85.9	342	975	2776	4036	6844
SAN DIEGO FWY	e/o 218th St	23852	98	2	9	65	100	0	0	1	85.2	86.2	368	1048	2985	4291	7242
SAN DIEGO FWY	w/o Alameda St	22746	99	2	7	65	100	0	0	1	84.7	85.7	330	941	2680	3917	6658
SAN DIEGO FWY	e/o Wilmington Ave	20877	101	3	8	65	100	0	0	1	84.5	85.5	317	903	2572	3784	6449
SAN DIEGO FWY	w/o Wilmington Ave	21308	101	3	8	65	100	0	0	1	84.6	85.6	326	928	2643	3872	6587
SAN DIEGO FWY	s/o Carson St	20978	101	3	8	65	100	0	0	1	84.6	85.6	326	927	2641	3870	6583
SAN DIEGO FWY	n/o Carson St	20690	99	3	8	65	100	0	0	1	84.5	85.5	315	896	2552	3758	6408
SAN DIEGO FWY	n/o 213th St	20465	101	3	8	65	100	0	0	1	84.5	85.5	317	903	2573	3785	6450
SAN DIEGO FWY	e/o Avalon Blvd	19277	100	3	8	65	100	0	0	1	84.3	85.3	303	862	2456	3639	6221
SAN DIEGO FWY	w/o Avalon Blvd	20209	100	3	8	65	100	0	0	1	84.4	85.4	312	888	2528	3729	6361
SAN GABRIEL AV	n/o PCH	194	2	0	40	45	100	0	0	1	63.5	64.5	4	11	32	92	210

TERMINAL ISLAND FWY	s/o PCH	1612	81	0	22	55	100	0	0	1	73.3	74.3	31	87	248	523	1039
TERMINAL ISLAND FWY	n/o PCH	1443	139	1	0	55	100	0	0	1	69.5	70.5	14	39	111	265	555
TERMINAL ISLAND FWY	between Off and loop On ramp at PCH	1787	71	0	30	55	100	0	0	1	74.7	75.7	40	115	327	660	1290
TERMINAL ISLAND FWY	s/o PCH off ramp	3226	56	0	47	55	100	0	0	1	78.7	79.7	94	269	765	1357	2505
TERMINAL ISLAND FWY	between Henry Ford Ave and Anaheim St	2329	41	0	49	55	100	0	0	1	77.4	78.4	72	205	583	1077	2025
TERMINAL ISLAND FWY	n/o Ocean Blvd	2647	35	0	47	35	100	0	0	1	74.0	75.0	35	101	288	593	1167
TERMINAL ISLAND FWY	s/o Henry Ford Ave	3884	38	0	51	35	100	0	0	1	76.0	77.0	54	153	436	842	1614
TERMINAL ISLAND FWY	e/o Seaside Ave	6856	113	1	35	35	100	0	0	1	77.4	78.4	72	204	580	1074	2019
TERMINAL ISLAND FWY	s/o Willow St	1443	139	1	0	35	100	0	0	1	63.5	64.5	4	11	32	92	210
TERMINAL WAY	w/o Ferry St	2123	49	0	54	35	100	0	0	1	73.7	74.7	33	95	269	561	1109
TERMINAL WAY	w/o Eaire St	1924	45	0	55	35	100	0	0	1	73.4	74.4	31	88	250	526	1045
TERMINAL WAY	s/o Navy Way	1524	29	0	71	35	100	0	0	1	73.4	74.4	31	87	249	525	1043
TERMINAL WAY	s/o Navy Way	943	31	0	74	35	100	0	0	1	71.4	72.4	21	59	167	374	764
TERMINAL WAY	s/o Navy Way	1524	29	0	71	35	100	0	0	1	73.4	74.4	31	87	249	525	1043
TERMINAL WAY	s/o Navy Way	628	28	0	72	35	100	0	0	1	69.6	70.6	14	40	113	269	563
TERMINAL WAY	s/o Navy Way	644	27	0	73	35	100	0	0	1	69.7	70.7	14	41	116	276	576
TERMINAL WAY	s/o Navy Way	1044	29	0	71	35	100	0	0	1	71.7	72.7	22	62	177	393	799
W 9TH ST	e/o Caspian Ave	1152	140	1	11	35	100	0	0	1	66.3	67.3	7	20	57	151	331
W 9TH ST	s/o Anaheim St	1301	88	1	12	35	100	0	0	1	66.2	67.2	7	20	56	148	325
W 9TH ST	e/o Santa Fe Ave	1429	93	1	6	35	100	0	0	1	65.0	66.0	5	15	44	120	268
W 9TH ST	w/o Caspian Ave	1152	140	1	11	35	100	0	0	1	66.3	67.3	7	20	57	151	331
W 9TH ST	n/o Pier B St	182	33	0	67	35	100	0	0	1	63.9	64.9	4	12	35	99	224
W 9TH ST	w/o Santa Fe Ave	1642	84	0	15	35	100	0	0	1	68.1	69.1	10	29	82	205	439
W 9TH ST	s/o Pier B St	747	17	0	83	35	100	0	0	1	70.9	71.9	18	52	149	341	700
W 9TH ST	n/o Pier B St	524	38	0	87	35	100	0	0	1	69.6	70.6	14	40	114	271	568
W ANAHEIM ST	e/o Harbor Ave	2628	90	1	9	35	100	0	0	1	68.6	69.6	11	33	93	227	482
W ANAHEIM ST	e/o Santa Fe Ave	3719	78	1	21	35	100	0	0	1	72.6	73.6	26	75	215	463	929
W ANAHEIM ST	w/o Harbor Ave	3203	84	1	15	35	100	0	0	1	71.0	72.0	19	53	152	345	709
W ANAHEIM ST	w/o Seabright Ave	2844	78	1	21	35	100	0	0	1	71.5	72.5	21	59	169	378	771
W ANAHEIM ST	w/o E I St	3186	88	1	11	35	100	0	0	1	70.1	71.1	15	44	125	293	610
W ANAHEIM ST	w/o Figueroa PL	2266	91	1	8	35	100	0	0	1	67.6	68.6	9	26	74	189	407
W ANAHEIM ST	between Wilmington and Neptune Ave	2137	97	1	2	35	100	0	0	1	64.8	65.8	5	14	41	115	257
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	2050	97	1	2	35	100	0	0	1	64.6	65.6	5	14	40	111	250
W ANAHEIM ST	e/o Neptune	2160	98	1	1	35	100	0	0	1	64.7	65.7	5	14	40	113	253
W ANAHEIM ST	between Neptune Ave and Fries Ave	2074	98	1	1	35	100	0	0	1	64.5	65.5	5	14	39	110	247
W ANAHEIM ST	w/o Frigate Ave	2232	98	1	2	35	100	0	0	1	64.9	65.9	5	15	42	117	262
W ANAHEIM ST	e/o Figueroa PL	2724	92	1	7	35	100	0	0	1	68.3	69.3	11	30	86	213	455
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	2708	78	1	21	35	100	0	0	1	71.3	72.3	20	57	162	365	747
W ANAHEIM ST	between Fries Ave and Avalon Blvd	2401	98	1	2	35	100	0	0	1	65.2	66.2	6	16	45	124	275
W ANAHEIM ST	between I-710 SB and NB Ramps	2833	91	1	8	35	100	0	0	1	68.8	69.8	12	34	95	233	494
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2279	72	0	28	35	100	0	0	1	71.6	72.6	21	60	171	382	778
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2449	73	0	26	35	100	0	0	1	71.7	72.7	22	61	175	388	791
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	1938	76	0	23	35	100	0	0	1	70.2	71.2	16	45	128	299	621
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2467	74	0	26	35	100	0	0	1	71.6	72.6	21	60	171	382	779
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2383	66	0	33	35	100	0	0	1	72.4	73.4	25	71	204	442	891
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2440	73	0	26	35	100	0	0	1	71.6	72.6	21	61	174	387	788
W I ST	n/o Anaheim St	446	85	1	14	35	100	0	0	1	62.2	63.2	3	8	24	73	169
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	4355	98	1	1	35	100	0	0	1	67.7	68.7	9	27	76	192	413
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	4704	98	1	1	35	100	0	0	1	68.0	69.0	10	29	82	204	437
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	4173	78	1	21	35	100	0	0	1	73.2	74.2	30	84	240	508	1012
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	3902	73	1	27	35	100	0	0	1	73.7	74.7	33	94	267	557	1103
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	3808	72	1	27	35	100	0	0	1	73.7	74.7	33	93	265	554	1096
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	4021	96	1	4	35	100	0	0	1	68.4	69.4	11	31	89	220	467
W PACIFIC COAST HIGHWAY	e/o Figueroa St	4048	96	1	3	35	100	0	0	1	68.3	69.3	11	30	87	215	458
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	3942	96	1	4	35	100	0	0	1	68.4	69.4	11	31	88	218	465
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	3682	76	1	23	35	100	0	0	1	73.0	74.0	28	81	230	491	981
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	4052	74	1	25	35	100	0	0	1	73.6	74.6	33	93	264	551	1091
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	3935	78	1	21	35	100	0	0	1	73.0	74.0	29	81	231	493	985
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	4219	80	1	19	35	100	0	0	1	72.9	73.9	28	79	224	480	962
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	710	31	0	69	35	100	0	0	1	69.9	70.9	15	42	121	285	593
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	738	38	0	62	35	100	0	0	1	69.7	70.7	14	40	115	272	570
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	4142	96	1	3	40	100	0	0	1	69.9	70.9	15	42	121	284	592

W SEPULVEDA BLVD	w/o NB I-110 off ramp	4223	96	1	3	40	100	0	0	1	70.0	71.0	15	43	123	288	601
W SEPULVEDA BLVD	w/o Figueroa St	3619	97	1	3	40	100	0	0	1	69.0	70.0	12	35	100	243	512
W SEPULVEDA BLVD	e/o Figueroa St	2077	97	1	2	40	100	0	0	1	66.2	67.2	7	20	56	148	324
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	4190	96	1	3	40	100	0	0	1	70.0	71.0	15	43	123	289	601
W WATER ST	between Fries Ave and Avalon Blvd	311	16	0	84	35	100	0	0	1	67.1	68.1	8	24	68	174	378
W WILLOW ST	between NB and SB Terminal Island Fwy	3589	96	1	3	35	100	0	0	1	67.6	68.6	9	26	75	189	408
W WILLOW ST	between Terminal Island Fwy and Santa Fe	4015	96	1	2	35	100	0	0	1	68.0	69.0	10	28	81	203	434
W WILLOW ST	between Santa Fe Ave and Easy Ave	3533	96	1	3	35	100	0	0	1	67.8	68.8	10	27	77	195	419
W WILLOW ST	e/o Easy Ave	4863	97	1	2	35	100	0	0	1	68.7	69.7	12	33	94	230	488
W WILLOW ST	w/o SB I-710 ramps	4023	97	1	2	35	100	0	0	1	67.6	68.6	9	26	75	191	411
W WILLOW ST	w/o NB I-710 on ramp	4142	97	1	2	35	100	0	0	1	67.8	68.8	10	28	78	197	423
SAN DIEGO FWY	SB e/o Wilmington Ave	20109	93	2	5	21	100	0	0	1	74.0	75.0	35	99	283	584	1152
SAN DIEGO FWY	SB w/o Wilmington Ave	20671	92	2	6	18	100	0	0	1	74.3	75.3	38	108	306	625	1226
SAN DIEGO FWY	SB s/o Carson St	19487	92	2	6	23	100	0	0	1	74.2	75.2	37	105	300	614	1207
SAN DIEGO FWY	NB n/o Carson St	17280	91	2	6	31	100	0	0	1	75.3	76.3	46	132	376	744	1439
SAN DIEGO FWY	NB n/o 213th St	18218	91	2	6	28	100	0	0	1	74.8	75.8	42	119	340	682	1329
SAN DIEGO FWY	NB e/o Avalon Blvd	17281	91	2	7	31	100	0	0	1	75.4	76.4	47	133	380	750	1450
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB w/o Avalon Blvd	18975	91	2	6	33	100	0	0	1	76.0	77.0	54	152	434	840	1609
SAN DIEGO FWY	SB e/o Avalon Blvd	18619	91	2	7	27	100	0	0	1	74.8	75.8	42	119	338	679	1323
SAN DIEGO FWY	NB w/o Wilmington Ave	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	NB e/o 218th St	20319	91	2	7	25	100	0	0	1	75.3	76.3	46	130	372	736	1425
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB s/o Carson St	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	SB n/o Carson St	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN GABRIEL AV	n/o PCH	225	20	0	80	30	100	0	0	1	65.0	66.0	5	15	43	119	266
TERMINAL ISLAND FWY	s/o PCH	2810	63	0	37	30	100	0	0	1	72.8	73.8	27	78	222	476	954
TERMINAL ISLAND FWY	n/o PCH	2465	67	0	33	30	100	0	0	1	71.8	72.8	22	63	181	400	812
TERMINAL ISLAND FWY	n/o Ocean Blvd	3502	65	0	35	30	100	0	0	1	73.6	74.6	32	91	259	543	1077
TERMINAL ISLAND FWY	NB s/o PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	SB n/o PCH	1125	64	0	36	49	100	0	0	1	72.1	73.1	23	67	190	418	845
TERMINAL ISLAND FWY	NB between Off and loop On ramp at PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	NB s/o PCH off ramp	2176	49	0	51	48	100	0	0	1	76.0	77.0	53	150	428	830	1593
TERMINAL ISLAND FWY	SB n/o Anaheim St	1120	72	0	28	49	100	0	0	1	71.2	72.2	19	55	158	357	732
TERMINAL ISLAND FWY	NB between Henry Ford Ave and Anaheim St	1726	55	0	45	49	100	0	0	1	74.6	75.6	40	114	325	658	1285
TERMINAL ISLAND FWY	NB n/o Ocean Blvd	1908	61	0	38	39	100	0	0	1	72.6	73.6	26	75	213	460	924
TERMINAL ISLAND FWY	SB n/o Ocean Blvd	1584	69	0	30	39	100	0	0	1	71.0	72.0	19	53	152	346	710
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2283	53	0	47	39	100	0	0	1	74.1	75.1	36	102	290	596	1174
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	e/o Seaside Ave	4985	80	1	19	27	100	0	0	1	72.5	73.5	26	73	208	451	908
TERMINAL ISLAND FWY	SB s/o Anaheim Way	1814	65	0	35	49	100	0	0	1	74.0	75.0	35	101	287	592	1166
TERMINAL ISLAND FWY	NB s/o Willow St	1353	66	0	33	25	100	0	0	1	68.9	69.9	12	34	97	237	501
TERMINAL ISLAND FWY	SB s/o PCH on ramp	1891	65	0	34	48	100	0	0	1	74.0	75.0	35	101	287	591	1165
TERMINAL ISLAND FWY	SB s/o PCH	1284	61	0	39	49	100	0	0	1	72.9	73.9	28	79	225	481	962
TERMINAL ISLAND FWY	NB n/o PCH	1340	69	0	30	49	100	0	0	1	72.2	73.2	24	69	196	428	864
TERMINAL ISLAND FWY	SB between loop Off and On ramp at PCH	1284	61	0	38	49	100	0	0	1	72.8	73.8	28	79	224	479	960
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2310	53	0	47	39	100	0	0	1	74.2	75.2	36	104	296	607	1194
TERMINAL WAY	w/o Ferry St	2434	58	0	42	24	100	0	0	1	72.4	73.4	25	71	203	442	890
TERMINAL WAY	w/o Eaire St	1905	54	0	46	33	100	0	0	1	72.3	73.3	25	70	199	434	875
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	743	26	0	74	30	100	0	0	1	69.8	70.8	14	41	118	278	581
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	542	19	0	81	31	100	0	0	1	68.9	69.9	12	34	98	238	504
TERMINAL WAY	s/o Navy Way	549	18	0	82	31	100	0	0	1	69.0	70.0	12	35	99	241	510
TERMINAL WAY	s/o Navy Way	884	26	0	74	29	100	0	0	1	70.5	71.5	17	48	137	316	653
W 9TH ST	e/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	85	195
W 9TH ST	s/o Anaheim St	1537	84	1	15	27	100	0	0	1	66.5	67.5	7	21	60	157	342
W 9TH ST	e/o Santa Fe Ave	1809	91	1	8	22	100	0	0	1	64.7	65.7	5	14	41	114	256
W 9TH ST	w/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	86	196
W 9TH ST	n/o Pier B St	96	34	0	66	38	100	0	0	1	61.6	62.6	3	7	21	65	153
W 9TH ST	w/o Santa Fe Ave	1839	83	1	17	20	100	0	0	1	67.5	68.5	9	26	73	187	403

W 9TH ST	s/o Pier B St	856	21	0	79	36	100	0	0	1	71.4	72.4	20	58	164	369	754
W 9TH ST	n/o Pier B St	315	28	0	72	36	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Harbor Ave	3311	93	1	6	26	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Santa Fe Ave	4489	82	1	17	24	100	0	0	1	71.4	72.4	20	58	165	371	757
W ANAHEIM ST	w/o Harbor Ave	3937	88	1	11	25	100	0	0	1	69.3	70.3	13	38	107	257	540
W ANAHEIM ST	w/o Seabright Ave	3538	83	1	16	26	100	0	0	1	70.2	71.2	16	45	129	301	625
W ANAHEIM ST	w/o E I St	4550	92	1	7	24	100	0	0	1	68.2	69.2	10	30	85	211	450
W ANAHEIM ST	w/o Figueroa PL	3972	91	1	8	24	100	0	0	1	68.4	69.4	11	31	88	218	464
W ANAHEIM ST	between Wilmington and Neptune Ave	3181	98	1	1	26	100	0	0	1	63.4	64.4	4	11	31	90	206
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	3602	98	1	1	25	100	0	0	1	63.6	64.6	4	11	32	93	212
W ANAHEIM ST	e/o Neptune	3195	98	1	1	26	100	0	0	1	63.2	64.2	4	10	30	87	199
W ANAHEIM ST	between Neptune Ave and Fries Ave	3063	98	1	1	26	100	0	0	1	63.3	64.3	4	11	30	88	201
W ANAHEIM ST	w/o Frigate Ave	3691	98	1	1	24	100	0	0	1	63.5	64.5	4	11	32	91	208
W ANAHEIM ST	e/o Figueroa PL	4409	92	1	8	23	100	0	0	1	68.4	69.4	11	31	89	219	467
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	3407	83	1	16	26	100	0	0	1	70.1	71.1	15	44	125	292	608
W ANAHEIM ST	between Fries Ave and Avalon Blvd	3641	98	1	1	25	100	0	0	1	63.8	64.8	4	12	34	97	219
W ANAHEIM ST	between I-710 SB and NB Ramps	4032	94	1	5	23	100	0	0	1	66.9	67.9	8	23	64	167	362
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2947	77	1	23	28	100	0	0	1	71.0	72.0	19	53	151	344	707
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	2409	78	1	21	30	100	0	0	1	70.0	71.0	15	44	124	291	606
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2917	78	1	21	29	100	0	0	1	70.7	71.7	18	50	143	328	677
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2714	72	1	28	29	100	0	0	1	71.5	72.5	21	59	167	375	765
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W I ST	n/o Anaheim St	875	87	1	12	26	100	0	0	1	63.1	64.1	4	10	29	85	196
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	8001	98	1	1	25	100	0	0	1	67.1	68.1	8	23	67	172	373
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	8552	98	1	1	24	100	0	0	1	67.4	68.4	9	25	71	181	392
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	5894	85	1	14	23	100	0	0	1	71.8	72.8	22	63	180	399	811
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	5846	80	1	20	19	100	0	0	1	73.4	74.4	31	88	250	527	1047
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	5737	80	1	19	19	100	0	0	1	73.2	74.2	30	85	242	512	1020
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	6514	97	1	2	27	100	0	0	1	67.8	68.8	10	27	78	196	420
W PACIFIC COAST HIGHWAY	e/o Figueroa St	6855	97	1	2	26	100	0	0	1	67.6	68.6	9	26	74	189	407
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	6425	97	1	2	29	100	0	0	1	68.3	69.3	11	30	86	214	456
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	5399	86	1	13	28	100	0	0	1	71.5	72.5	21	60	170	379	774
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	6025	81	1	18	16	100	0	0	1	73.6	74.6	32	92	261	547	1083
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	5307	84	1	15	21	100	0	0	1	71.7	72.7	22	61	175	389	791
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	5717	90	1	9	21	100	0	0	1	70.2	71.2	16	45	129	301	625
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	785	19	0	81	30	100	0	0	1	70.4	71.4	17	47	135	312	647
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	963	15	0	85	24	100	0	0	1	71.3	72.3	20	57	161	363	743
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	7322	96	1	3	24	100	0	0	1	67.7	68.7	9	27	76	192	413
W SEPULVEDA BLVD	w/o NB I-110 off ramp	7449	96	1	3	27	100	0	0	1	68.4	69.4	11	31	88	217	462
W SEPULVEDA BLVD	w/o Figueroa St	6324	97	1	2	29	100	0	0	1	68.0	69.0	10	28	80	202	432
W SEPULVEDA BLVD	e/o Figueroa St	3739	97	1	2	29	100	0	0	1	65.7	66.7	6	18	50	136	300
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	7414	96	1	3	23	100	0	0	1	67.8	68.8	10	27	77	195	419
W WATER ST	between Fries Ave and Avalon Blvd	343	56	0	44	30	100	0	0	1	64.4	65.4	5	13	38	108	242
W WILLOW ST	between NB and SB Terminal Island Fwy	5909	91	1	8	21	100	0	0	1	69.9	70.9	15	43	121	285	595
W WILLOW ST	between Terminal Island Fwy and Santa Fe	6681	96	1	2	16	100	0	0	1	66.7	67.7	8	22	61	160	350
W WILLOW ST	between Santa Fe Ave and Easy Ave	6247	96	1	3	19	100	0	0	1	66.7	67.7	8	22	62	163	354
W WILLOW ST	e/o Easy Ave	8543	97	1	2	11	100	0	0	1	68.7	69.7	11	33	93	228	484
W WILLOW ST	w/o SB I-710 ramps	6855	97	1	2	16	100	0	0	1	65.9	66.9	6	18	53	141	310
W WILLOW ST	w/o NB I-710 on ramp	7244	97	1	2	14	100	0	0	1	66.6	67.6	7	21	60	158	345

FHWA TRAFFIC NOISE CALCULATOR

SCIG 2023 REDUCED PROJECT CONDITIONS TRAFFIC

ROADWAY	Segment	Peak Hour Volume	Vehicle Distribution %Auto	%MT	%HT	Vehicle Speed mph	Receiver Distance CL, ft	Grade % NL	FL	CNEL Correction	PREDICTED TRAFFIC NOISE LEVEL, dBA Leq @ Rec.	CNEL @ Rec.	DISTANCE TO CNEL CONTOURS 80	75	70	65	60
1ST ST	e/o East RD	549	0	0	100	25	100	0	0	1	73.9	74.9	34	97	277	575	1135
ACCESS RD	e/o Ferry St	955	55	0	45	30	100	0	0	1	68.9	69.9	12	34	98	238	504
ALAMEDA ST	n/o Anaheim St	1683	72	1	27	40	100	0	0	1	71.0	72.0	19	53	152	345	709
ALAMEDA ST	w/o Eubank Ave	2469	58	0	42	40	100	0	0	1	74.2	75.2	37	105	299	613	1204
ALAMEDA ST	s/o PCH	2004	62	1	37	40	100	0	0	1	72.9	73.9	28	80	227	486	972
ALAMEDA ST	s/o Anaheim St	3917	71	1	28	40	100	0	0	1	74.9	75.9	42	120	343	687	1338
CARRACK AVE	e/o Pier B St	208	0	0	100	35	100	0	0	1	66.1	67.1	7	19	55	145	319
E 223RD ST	w/o I-405 Off ramps	3349	83	1	16	35	100	0	0	1	71.3	72.3	20	57	163	367	750
E ANAHEIM ST	between Avalon Blvd and Broad Ave	2230	98	1	1	35	100	0	0	1	64.5	65.5	5	14	39	109	244
E ANAHEIM ST	between Eubank Ave and Sanford St	2314	99	1	1	35	100	0	0	1	64.5	65.5	5	14	39	110	246
E ANAHEIM ST	between Sanford Ave and Sanford St	2392	99	1	1	35	100	0	0	1	64.6	65.6	5	14	40	112	251
E ANAHEIM ST	between Anaheim and Henry Ford	4587	85	1	14	35	100	0	0	1	72.3	73.3	25	70	200	436	880
E ANAHEIM ST	e/o Henry Ford Ave	3900	85	1	14	45	100	0	0	1	73.8	74.8	34	95	272	565	1117
E ANAHEIM ST	w/o E I St	3206	88	1	11	45	100	0	0	1	72.3	73.3	25	70	201	437	882
E ANAHEIM ST	e/o Sanford Ave	2349	99	1	1	45	100	0	0	1	67.7	68.7	9	27	76	192	413
E ANAHEIM ST	w/o Anaheim Way	3915	85	1	15	45	100	0	0	1	73.9	74.9	34	97	276	573	1131
E ANAHEIM ST	between Henry Ford Ave and Terminal Isla	3906	85	1	14	45	100	0	0	1	73.8	74.8	34	96	274	568	1123
E HARRY BRIDGES BLVD	e/o Avalon Blvd	2118	60	0	40	35	100	0	0	1	72.5	73.5	26	74	210	454	913
E I ST	between Terminal Island Fwy and Anaheim	1281	54	0	45	35	100	0	0	1	70.8	71.8	18	52	147	336	692
E OPP ST	w/o Farragut Ave	302	92	0	8	35	100	0	0	1	58.7	59.7	1	4	12	39	95
E SEPULVEDA BLVD	e/o Alameda St	3036	95	2	4	40	100	0	0	1	68.8	69.8	12	34	96	235	497
E SEPULVEDA BLVD	w/o Dolores St	2935	98	1	2	40	100	0	0	1	67.6	68.6	9	26	75	190	409
E SEPULVEDA BLVD	w/o Wilmington Ave	3774	96	1	3	40	100	0	0	1	69.3	70.3	13	38	107	257	541
E SEPULVEDA BLVD	e/o Wilmington Ave	2794	96	1	3	40	100	0	0	1	68.0	69.0	10	28	81	202	433
E SEPULVEDA BLVD	e/o Dolores St	2637	97	1	2	40	100	0	0	1	67.2	68.2	9	24	69	177	383
E SEPULVEDA BLVD	w/o Avalon Blvd	2512	97	1	2	40	100	0	0	1	67.2	68.2	8	24	68	175	379
EAST RD	n/o 1st St	263	0	0	100	26	100	0	0	1	66.3	67.3	7	20	57	151	331
EAST RD	s/o 1st St	262	0	0	100	37	100	0	0	1	67.4	68.4	9	25	72	183	395
FARRAGUT AVE	Between Terminal Island Fwy SB ramps and	1113	54	0	46	35	100	0	0	1	70.3	71.3	16	46	131	306	634
FARRAGUT AVE	s/o E OPP St	300	92	0	8	35	100	0	0	1	58.7	59.7	1	4	12	39	95
FERRY ST	between Seaside Ave and Access Rd	978	54	0	46	25	100	0	0	1	68.8	69.8	12	34	96	234	496
FERRY ST	between Terminal Way and Pitchard St	1716	49	0	51	25	100	0	0	1	71.7	72.7	22	61	175	389	792
FIGUEROA ST	n/o Anaheim St	1137	89	1	10	35	100	0	0	1	65.2	66.2	6	16	45	123	274
FIGUEROA ST	n/o PCH	2158	96	1	3	35	100	0	0	1	65.7	66.7	6	18	50	136	300
HARBOR FWY	n/o PCH off Ramp	13867	85	1	14	65	100	0	0	1	83.5	84.5	257	731	2081	3163	5466
HARBOR FWY	s/o Sepulveda Blvd	13329	84	1	15	65	100	0	0	1	83.4	84.4	253	721	2054	3128	5410
HARBOR FWY	n/o Sepulveda Blvd	13919	85	1	14	65	100	0	0	1	83.5	84.5	256	730	2078	3159	5460
HARBOR FWY	n/o 223rd St	14870	86	1	13	65	100	0	0	1	83.6	84.6	261	742	2114	3205	5532
HARBOR FWY	n/o 220th St	15545	87	1	12	65	100	0	0	1	83.7	84.7	267	759	2162	3267	5631
HARBOR FWY	n/o Carson St	16587	87	1	12	65	100	0	0	1	83.8	84.8	275	783	2231	3354	5770
HARBOR FWY	n/o Redondo Beach Blvd	19481	93	2	6	65	100	0	0	1	83.4	84.4	250	713	2031	3099	5364
HARBOR FWY	between 135 th St and Rosecrans Ave	19191	93	2	6	65	100	0	0	1	83.3	84.3	246	700	1994	3050	5286
HARBOR FWY	n/o 135th St	18879	93	2	6	65	100	0	0	1	83.2	84.2	242	690	1966	3014	5228
HARBOR FWY	n/o Alondra	18875	92	2	6	65	100	0	0	1	83.3	84.3	246	700	1992	3049	5284
HARBOR FWY	between Del Amo Blvd and Torrance Blv	16200	87	1	12	65	100	0	0	1	83.8	84.8	270	770	2193	3307	5695
HARBOR FWY	between 168th and Alondra	19731	92	2	6	65	100	0	0	1	83.5	84.5	258	736	2096	3182	5496
HARBOR FWY	n/o Del Amo Blvd	17503	88	1	11	65	100	0	0	1	84.0	85.0	282	804	2290	3429	5889
HARBOR FWY	n/o I-405	14740	89	1	10	65	100	0	0	1	83.0	84.0	232	660	1879	2901	5047
HARBOR FWY	s/o I-405	14707	89	1	10	65	100	0	0	1	83.0	84.0	231	658	1875	2896	5040
HARBOR FWY	s/o 182nd St	16280	90	1	8	65	100	0	0	1	83.2	84.2	238	679	1934	2973	5163
HARBOR FWY	between Artesia Blvd and 168th	16523	92	1	7	65	100	0	0	1	82.9	83.9	226	644	1835	2843	4955
HARBOR FWY	s/o SR-91	16700	92	2	7	65	100	0	0	1	82.9	83.9	226	643	1832	2840	4950
HARBOR FWY	s/o PCH off Ramp	12052	82	1	17	65	100	0	0	1	83.3	84.3	245	697	1986	3040	5269
HARBOR FWY	n/o El Segundo Blvd	18915	92	2	6	65	100	0	0	1	83.3	84.3	246	700	1994	3051	5288
HARBOR FWY	s/o El Segundo Blvd	18620	93	2	6	65	100	0	0	1	83.2	84.2	241	687	1958	3004	5212
HARBOR FWY	n/o Anaheim St	12785	84	1	15	65	100	0	0	1	83.3	84.3	245	699	1990	3046	5279

HARBOR FWY	s/o 120th St	18571	92	2	6	65	100	0	0	1	83.2	84.2	241	687	1958	3004	5212
HARBOR FWY	n/o 120th St	15607	92	2	6	65	100	0	0	1	82.6	83.6	211	600	1708	2676	4685
HARBOR FWY	n/o I-105	17617	92	2	6	65	100	0	0	1	83.0	84.0	229	653	1861	2878	5010
HARBOR FWY	n/o 108th St	20680	93	2	5	65	100	0	0	1	83.5	84.5	259	737	2098	3185	5500
HARBOR FWY	s/o 223rd St	15149	86	1	13	65	100	0	0	1	83.7	84.7	267	760	2165	3270	5637
HARBOR FWY	s/o 190th St	14933	89	1	10	65	100	0	0	1	83.1	84.1	238	676	1927	2963	5147
HARBOR PLZ	between Pier F Ave and Pico Ave	753	20	0	80	40	100	0	0	1	71.6	72.6	21	60	172	384	782
HARBOR SCENIC DR	w/o Goldenshore St	1499	33	0	67	40	100	0	0	1	73.8	74.8	34	97	276	572	1129
HARBOR SCENIC DR	s/o Shoreline Dr	2124	21	0	79	40	100	0	0	1	76.0	77.0	54	153	437	844	1618
HARBOR SCENIC DR	n/o Shoreline Dr	2622	18	0	82	40	100	0	0	1	77.1	78.1	67	191	544	1017	1920
HARBOR SCENIC WAY	e/o Queens Hwy	1035	23	0	77	40	100	0	0	1	72.8	73.8	27	78	222	476	953
HARBOR SCENIC WAY	e/o Port Access Rd	1110	21	0	79	40	100	0	0	1	73.2	74.2	30	85	241	510	1017
HARBOR SCENIC WAY	Between Queens Hwy and Port Access Rd	45	0	0	100	40	100	0	0	1	60.2	61.2	2	6	16	51	123
HARBOR SCENIC WAY	w/o Port Access Rd	1110	21	0	79	40	100	0	0	1	73.2	74.2	30	85	241	510	1017
JOHN S GIBSON BLVD	n/o I-110 Ramps	2179	75	0	25	35	100	0	0	1	70.9	71.9	18	53	150	341	701
LONG BEACH FWY	n/o Imperial Hwy	18488	83	1	15	65	100	0	0	1	85.0	86.0	348	991	2822	4093	6932
LONG BEACH FWY	s/o Imperial Hwy	20312	84	1	14	65	100	0	0	1	85.2	86.2	368	1048	2985	4292	7243
LONG BEACH FWY	n/o I-105	17313	82	1	16	65	100	0	0	1	84.8	85.8	340	967	2754	4009	6802
LONG BEACH FWY	s/o I-105	16745	82	1	17	65	100	0	0	1	84.7	85.7	332	947	2696	3938	6690
LONG BEACH FWY	n/o Rosecrans Ave	17109	82	1	17	65	100	0	0	1	84.8	85.8	337	961	2737	3988	6768
LONG BEACH FWY	s/o Rosecrans Ave	25240	82	1	16	65	100	0	0	1	86.5	87.5	480	1366	3891	5372	8907
LONG BEACH FWY	n/o Alondra	24941	82	1	17	65	100	0	0	1	86.5	87.5	479	1364	3886	5365	8897
LONG BEACH FWY	between Alondra and Rosecrans	25233	82	1	17	65	100	0	0	1	86.5	87.5	481	1369	3900	5382	8923
LONG BEACH FWY	s/o Alondra	24761	82	1	17	65	100	0	0	1	86.5	87.5	481	1369	3899	5380	8920
LONG BEACH FWY	n/o SR-91	19723	79	1	20	65	100	0	0	1	85.9	86.9	427	1217	3467	4871	8139
LONG BEACH FWY	n/o Artesia Blvd	14371	74	1	25	65	100	0	0	1	85.1	86.1	360	1026	2923	4216	7125
LONG BEACH FWY	s/o Artesia Blvd	18077	72	1	27	65	100	0	0	1	86.4	87.4	471	1342	3823	5291	8784
LONG BEACH FWY	n/o Long Beach Blvd	19512	73	1	26	65	100	0	0	1	86.6	87.6	494	1408	4009	5508	9116
LONG BEACH FWY	s/o Long Beach Blvd	17907	70	1	29	65	100	0	0	1	86.6	87.6	487	1386	3947	5436	9006
LONG BEACH FWY	n/o Del Amo Blvd	18686	71	1	28	65	100	0	0	1	86.6	87.6	490	1396	3975	5469	9056
LONG BEACH FWY	s/o Del Amo Blvd Off ramp	18374	70	1	28	65	100	0	0	1	86.6	87.6	491	1399	3984	5480	9073
LONG BEACH FWY	s/o Del Amo Blvd	19309	72	1	27	65	100	0	0	1	86.7	87.7	501	1427	4065	5573	9215
LONG BEACH FWY	n/o Wardlow Rd	11881	60	1	39	65	100	0	0	1	85.7	86.7	406	1156	3292	4663	7818
LONG BEACH FWY	s/o Wardlow Rd	14651	66	1	33	65	100	0	0	1	86.1	87.1	439	1252	3565	4987	8318
LONG BEACH FWY	n/o Willow St	14892	66	1	33	65	100	0	0	1	86.1	87.1	444	1265	3602	5032	8387
LONG BEACH FWY	s/o Willow St	13810	65	1	34	65	100	0	0	1	85.9	86.9	428	1218	3468	4873	8142
LONG BEACH FWY	between off/of namps at Willow St	13900	64	1	35	65	100	0	0	1	86.0	87.0	436	1240	3533	4950	8260
LONG BEACH FWY	s/o Anaheim St	12559	68	1	31	65	100	0	0	1	85.2	86.2	367	1047	2981	4287	7234
LONG BEACH FWY	s/o PCH	12559	68	1	31	65	100	0	0	1	85.2	86.2	367	1047	2981	4287	7234
LONG BEACH FWY	n/o Anahiem St	12421	67	1	33	65	100	0	0	1	85.3	86.3	374	1065	3032	4349	7332
LONG BEACH FWY	s/o Firestone Blvd	20419	85	1	14	65	100	0	0	1	85.2	86.2	364	1036	2950	4249	7175
LONG BEACH FWY	s/o 9th St	4821	20	0	80	65	100	0	0	1	84.3	85.3	306	872	2482	3671	6272
LONG BEACH FWY	n/o Long Beach Blvd	17849	72	1	27	65	100	0	0	1	86.3	87.3	461	1314	3743	5198	8641
LONG BEACH FWY	n/o 9th St	5647	19	0	81	65	100	0	0	1	85.1	86.1	355	1012	2881	4165	7045
LONG BEACH FWY	n/o 10th St	8189	51	0	48	65	100	0	0	1	84.8	85.8	337	959	2732	3982	6759
LONG BEACH FWY	s/o On ramp at Del Amo Blvd	18729	71	1	28	65	100	0	0	1	86.6	87.6	493	1404	3998	5496	9097
LONG BEACH FWY	s/o Willow St	13144	63	1	37	65	100	0	0	1	85.9	86.9	426	1212	3452	4854	8112
LONG BEACH FWY	n/o Anaheim St	12858	67	1	32	65	100	0	0	1	85.4	86.4	385	1097	3125	4462	7507
N HENRY FORD AVE	n/o Terminal Island fwy	1195	64	0	36	40	100	0	0	1	70.5	71.5	17	48	137	317	655
N HENRY FORD AVE	n/o Anaheim St	514	34	0	66	40	100	0	0	1	69.2	70.2	13	36	104	250	526
N SEASIDE AVE	e/o Navy Way	6823	66	0	34	55	100	0	0	1	80.9	81.9	148	422	1201	1986	3559
N SEASIDE AVE	e/o Access Rd ramp	3544	72	0	28	55	100	0	0	1	77.4	78.4	71	203	577	1068	2009
N SEASIDE AVE	w/o Navy Way	7088	69	0	31	55	100	0	0	1	80.7	81.7	144	410	1168	1941	3484
N SEASIDE AVE	e/o Ferry St	973	54	0	46	55	100	0	0	1	73.4	74.4	31	89	254	533	1059
N SEASIDE AVE	e/o Navy Way ramp	7743	61	0	38	55	100	0	0	1	81.8	82.8	182	517	1472	2360	4173
N SEASIDE AVE	e/o Navy Way	6819	66	0	34	55	100	0	0	1	80.9	81.9	148	421	1199	1984	3555
NAVY WAY	s/o Reeves Ave	1982	25	0	75	45	100	0	0	1	76.4	77.4	58	166	472	901	1717
NAVY WAY	s/o Terminal Way	2419	24	0	76	45	100	0	0	1	77.3	78.3	71	201	572	1061	1996
NEW DOCK ST	w/o Henry Ford Ave	911	27	0	73	45	100	0	0	1	73.0	74.0	28	81	230	490	979
NEW DOCK ST	e/o Henry Ford Ave	1746	31	0	69	45	100	0	0	1	75.5	76.5	49	138	394	773	1491
NEW DOCK ST	w/o SB off ramp Terminal Island Fwy	1746	31	0	69	45	100	0	0	1	75.5	76.5	49	138	394	773	1491
NEW DOCK ST	w/o NB on ramp Terminal Island Fwy	1421	28	0	72	45	100	0	0	1	74.8	75.8	42	118	337	678	1322

NEW DOCK ST	between Terminal Island Fwy SB and NB Ra	1421	28	0	72	45	100	0	0	1	74.8	75.8	42	118	337	678	1322
NEW DOCK ST	e/o NB on ramp Terminal Island Fwy	784	0	0	100	45	100	0	0	1	73.5	74.5	32	91	259	542	1075
PACIFIC COAST HIGHWAY	between Avalon Blvd and Eubank Ave	3572	95	1	4	45	100	0	0	1	70.8	71.8	18	51	146	334	689
PACIFIC COAST HIGHWAY	between Watson Ave and Eubank Ave	3520	95	1	4	45	100	0	0	1	70.8	71.8	18	51	145	333	686
PACIFIC COAST HIGHWAY	w/o Alameda St	3499	92	1	7	45	100	0	0	1	71.7	72.7	22	62	176	392	797
PACIFIC COAST HIGHWAY	w/o East Rd	3390	94	1	5	45	100	0	0	1	70.9	71.9	18	52	148	337	694
PACIFIC COAST HIGHWAY	w/o East Rd	3297	94	1	5	45	100	0	0	1	70.8	71.8	18	51	145	331	683
PACIFIC COAST HIGHWAY	between Watson Ave and Blinn Ave	3366	95	1	4	45	100	0	0	1	70.6	71.6	17	49	140	322	666
PICO AVE	s/o Ocean Blvd	962	42	0	58	35	100	0	0	1	70.5	71.5	17	48	138	318	658
PICO AVE	n/o Ocean Blvd	1276	34	0	66	35	100	0	0	1	72.3	73.3	24	70	199	433	874
PICO AVE	n/o Pier C St	1835	37	0	63	35	100	0	0	1	73.7	74.7	33	93	266	554	1097
PICO AVE	s/o Pier C St	1520	38	0	62	35	100	0	0	1	72.8	73.8	28	78	223	478	958
PICO AVE	n/o Pier DSt	1526	37	0	63	35	100	0	0	1	72.9	73.9	28	79	225	481	964
PIER A WAY	e/o Henry Ford Ave	349	31	0	69	35	100	0	0	1	66.8	67.8	8	22	64	165	359
PIER A WAY	e/o Henry Ford Ave	468	35	0	65	35	100	0	0	1	67.9	68.9	10	28	79	198	424
PIER A WAY	e/o Henry Ford Ave	516	32	0	68	35	100	0	0	1	68.5	69.5	11	32	90	221	471
PIER A WAY	between Terminal Island Fwy and Henry Fo	57	2	0	98	35	100	0	0	1	60.4	61.4	2	6	17	53	126
PIER A WAY	n/o Terminal Island Fwy	254	37	0	63	35	100	0	0	1	65.1	66.1	5	16	44	122	272
PIER A WAY	e/o Henry Ford Ave	231	41	0	59	35	100	0	0	1	64.4	65.4	5	13	38	108	242
PIER A WAY	e/o Henry Ford Ave	232	31	0	69	35	100	0	0	1	65.0	66.0	5	15	44	120	268
PIER B ST	s/o 9th St	707	37	0	63	35	100	0	0	1	69.5	70.5	14	39	111	266	557
PIER B ST	w/o Edison Ave	1026	63	0	37	35	100	0	0	1	69.1	70.1	13	36	102	247	522
PIER B ST	n/o Pier A way	371	29	0	71	35	100	0	0	1	67.2	68.2	9	24	69	177	384
PIER C ST	w/o Pier B St	425	30	0	70	35	100	0	0	1	67.7	68.7	9	27	77	194	417
PIER C ST	w/o Pier B St	365	16	0	84	35	100	0	0	1	67.8	68.8	10	27	78	197	423
PIER D AVE	s/o Pier D St	200	75	0	25	35	100	0	0	1	60.5	61.5	2	6	17	54	128
PIER D ST	w/o I-710	494	39	0	61	35	100	0	0	1	67.9	68.9	10	28	79	199	426
PIER F AVE	s/o Harbor Plaza	678	16	0	84	35	100	0	0	1	70.5	71.5	17	48	137	317	655
PIER G AV	s/o Harbor Plaza	1048	2	0	98	35	100	0	0	1	73.1	74.1	29	82	234	498	994
PIER G AV	s/o Harbor Plaza	1048	2	0	98	35	100	0	0	1	73.1	74.1	29	82	234	498	994
PIER J WAY	e/o Panorama Dr	734	39	0	61	35	100	0	0	1	69.6	70.6	14	40	113	269	563
PORT ACCESS RD	e/o Ocean Blvd Ramps	2263	27	0	73	35	100	0	0	1	75.2	76.2	45	129	366	727	1409
PORT ACCESS RD	n/o New Dock St	686	18	0	82	35	100	0	0	1	70.5	71.5	17	48	136	315	652
PORT ACCESS RD	n/o New Dock St	643	17	0	83	35	100	0	0	1	70.3	71.3	16	46	130	303	629
PORT ACCESS RD	s/o Pier J way	1042	23	0	77	35	100	0	0	1	72.1	73.1	23	67	190	416	843
PORT ACCESS RD	s/o Pier J way	734	39	0	61	35	100	0	0	1	69.6	70.6	14	40	113	269	563
PORT ACCESS RD	n/o Pier J way	1034	23	0	77	35	100	0	0	1	72.0	73.0	23	66	188	413	837
PORT ACCESS RD	s/o Harbor Scenic way	1038	23	0	77	35	100	0	0	1	72.0	73.0	23	66	188	414	838
QUEENSWAY DR	s/o Harbor Scenic Dr	617	12	0	88	35	100	0	0	1	70.3	71.3	16	46	131	304	632
S ALAMEDA ST	n/o Wardlow Rd	2036	57	1	43	35	100	0	0	1	72.6	73.6	26	75	214	461	927
S FRIES AVE	s/o Water St	836	23	0	77	35	100	0	0	1	71.1	72.1	19	54	154	350	718
S FRIES AVE	between Harry Bridges Blvd and Water St	527	17	0	83	35	100	0	0	1	69.4	70.4	13	38	109	261	547
S HARBOR SCENIC DR	s/o Shoreline Dr	684	15	0	85	40	100	0	0	1	71.4	72.4	20	58	166	372	759
S HARBOR SCENIC DR	w/o Goldenshore St	1660	29	0	71	40	100	0	0	1	74.6	75.6	39	112	320	648	1268
S HARBOR SCENIC DR	e/o Goldenshore St	2183	19	0	81	40	100	0	0	1	76.2	77.2	56	159	454	872	1667
S HARBOR SCENIC DR	w/o Panorama Dr	2142	41	0	59	40	100	0	0	1	75.0	76.0	43	122	348	696	1353
S PICO AVE	s/o Embarcadero	886	28	0	72	35	100	0	0	1	71.1	72.1	19	54	155	351	720
S PICO AVE	n/o Harbor Scenic Dr ramp	2081	14	0	86	35	100	0	0	1	75.5	76.5	48	137	389	766	1479
S PICO AVE	s/o Harbor Scenic Dr ramp	1887	13	0	87	35	100	0	0	1	75.1	76.1	44	127	361	718	1393
SAN DIEGO FWY	e/o I-110	22047	91	2	7	65	100	0	0	1	84.3	85.3	304	865	2463	3648	6234
SAN DIEGO FWY	e/o Wilmington Blvd	21158	90	2	7	65	100	0	0	1	84.2	85.2	294	837	2385	3550	6080
SAN DIEGO FWY	w/o Santa Fe Ave	22765	90	2	8	65	100	0	0	1	84.6	85.6	324	922	2627	3852	6555
SAN DIEGO FWY	e/o 218th St	23877	90	2	8	65	100	0	0	1	84.9	85.9	341	972	2769	4028	6830
SAN DIEGO FWY	w/o Alameda St	22744	91	2	7	65	100	0	0	1	84.3	85.3	306	872	2483	3673	6274
SAN DIEGO FWY	e/o Wilmington Ave	20875	91	2	7	65	100	0	0	1	84.1	85.1	288	820	2335	3487	5980
SAN DIEGO FWY	w/o Wilmington Ave	21307	90	2	7	65	100	0	0	1	84.2	85.2	295	841	2394	3561	6097
SAN DIEGO FWY	s/o Carson St	20979	90	2	7	65	100	0	0	1	84.1	85.1	293	835	2377	3540	6064
SAN DIEGO FWY	n/o Carson St	20691	90	2	7	65	100	0	0	1	84.1	85.1	289	822	2342	3496	5994
SAN DIEGO FWY	n/o 213th St	20465	90	2	7	65	100	0	0	1	84.0	85.0	287	817	2326	3475	5961
SAN DIEGO FWY	e/o Avalon Blvd	19277	90	2	8	65	100	0	0	1	83.8	84.8	274	781	2225	3347	5759
SAN DIEGO FWY	w/o Avalon Blvd	20210	90	2	7	65	100	0	0	1	84.0	85.0	284	809	2303	3446	5915
SAN GABRIEL AV	n/o PCH	526	12	0	88	45	100	0	0	1	71.3	72.3	20	57	161	364	744

TERMINAL ISLAND FWY	s/o PCH	1651	77	0	22	55	100	0	0	1	73.4	74.4	31	88	250	527	1048
TERMINAL ISLAND FWY	n/o PCH	1458	99	0	0	55	100	0	0	1	68.1	69.1	10	29	83	206	441
TERMINAL ISLAND FWY	between Off and loop On ramp at PCH	1808	70	0	29	55	100	0	0	1	74.6	75.6	40	114	325	657	1283
TERMINAL ISLAND FWY	s/o PCH off ramp	3246	55	0	45	55	100	0	0	1	78.6	79.6	92	262	746	1327	2455
TERMINAL ISLAND FWY	between Henry Ford Ave and Anaheim St	2329	45	0	55	55	100	0	0	1	77.9	78.9	79	224	639	1165	2176
TERMINAL ISLAND FWY	n/o Ocean Blvd	2643	43	0	57	35	100	0	0	1	74.9	75.9	42	121	343	689	1341
TERMINAL ISLAND FWY	s/o Henry Ford Ave	3903	42	0	57	35	100	0	0	1	76.6	77.6	61	173	492	933	1773
TERMINAL ISLAND FWY	e/o Seaside Ave	6862	76	0	24	35	100	0	0	1	75.7	76.7	50	143	408	797	1533
TERMINAL ISLAND FWY	s/o Willow St	1458	99	0	0	35	100	0	0	1	62.1	63.1	3	8	24	72	167
TERMINAL WAY	w/o Ferry St	2130	47	0	53	35	100	0	0	1	73.6	74.6	32	92	263	550	1089
TERMINAL WAY	w/o Eaire St	1938	44	0	56	35	100	0	0	1	73.4	74.4	31	89	253	531	1055
TERMINAL WAY	s/o Navy Way	1527	29	0	71	35	100	0	0	1	73.4	74.4	31	88	250	526	1045
TERMINAL WAY	s/o Navy Way	950	30	0	70	35	100	0	0	1	71.3	72.3	20	56	161	363	742
TERMINAL WAY	s/o Navy Way	1534	29	0	71	35	100	0	0	1	73.4	74.4	31	88	251	528	1050
TERMINAL WAY	s/o Navy Way	633	28	0	72	35	100	0	0	1	69.6	70.6	14	40	114	271	567
TERMINAL WAY	s/o Navy Way	655	27	0	73	35	100	0	0	1	69.8	70.8	15	42	119	281	586
TERMINAL WAY	s/o Navy Way	1088	28	0	72	35	100	0	0	1	71.9	72.9	23	65	185	408	827
W 9TH ST	e/o Caspian Ave	1154	92	1	8	35	100	0	0	1	64.6	65.6	5	14	39	110	248
W 9TH ST	s/o Anaheim St	1307	88	1	12	35	100	0	0	1	66.3	67.3	7	20	57	151	330
W 9TH ST	e/o Santa Fe Ave	1432	93	1	6	35	100	0	0	1	65.1	66.1	5	16	44	122	272
W 9TH ST	w/o Caspian Ave	1154	92	1	8	35	100	0	0	1	64.6	65.6	5	14	39	110	248
W 9TH ST	n/o Pier B St	186	32	0	68	35	100	0	0	1	64.0	65.0	4	12	35	101	228
W 9TH ST	w/o Santa Fe Ave	1652	84	0	16	35	100	0	0	1	68.2	69.2	10	30	84	210	448
W 9TH ST	s/o Pier B St	760	16	0	84	35	100	0	0	1	71.0	72.0	19	53	152	346	711
W 9TH ST	n/o Pier B St	542	29	0	71	35	100	0	0	1	68.9	69.9	12	34	97	236	500
W ANAHEIM ST	e/o Harbor Ave	2640	90	1	9	35	100	0	0	1	68.7	69.7	12	33	94	230	487
W ANAHEIM ST	e/o Santa Fe Ave	3724	79	1	21	35	100	0	0	1	72.6	73.6	26	75	214	462	927
W ANAHEIM ST	w/o Harbor Ave	3259	83	1	16	35	100	0	0	1	71.3	72.3	20	57	162	365	747
W ANAHEIM ST	w/o Seabright Ave	2874	78	1	21	35	100	0	0	1	71.6	72.6	21	61	174	387	788
W ANAHEIM ST	w/o E I St	3219	87	1	12	35	100	0	0	1	70.2	71.2	16	45	129	301	625
W ANAHEIM ST	w/o Figueroa PL	2270	92	1	8	35	100	0	0	1	67.6	68.6	9	26	74	189	407
W ANAHEIM ST	between Wilmington and Neptune Ave	2149	97	1	2	35	100	0	0	1	64.8	65.8	5	15	41	115	257
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	2055	97	1	2	35	100	0	0	1	64.6	65.6	5	14	40	111	250
W ANAHEIM ST	e/o Neptune	2172	98	1	1	35	100	0	0	1	64.7	65.7	5	14	41	113	253
W ANAHEIM ST	between Neptune Ave and Fries Ave	2086	98	1	1	35	100	0	0	1	64.6	65.6	5	14	39	110	248
W ANAHEIM ST	w/o Frigate Ave	2237	98	1	2	35	100	0	0	1	64.9	65.9	5	15	43	118	263
W ANAHEIM ST	e/o Figueroa PL	2729	92	1	7	35	100	0	0	1	68.3	69.3	11	30	86	214	455
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	2725	78	1	21	35	100	0	0	1	71.4	72.4	20	58	164	369	754
W ANAHEIM ST	between Fries Ave and Avalon Blvd	2413	98	1	2	35	100	0	0	1	65.2	66.2	6	16	45	124	276
W ANAHEIM ST	between I-710 SB and NB Ramps	2839	91	1	8	35	100	0	0	1	68.8	69.8	12	33	95	233	493
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2267	71	0	28	35	100	0	0	1	71.6	72.6	21	60	171	381	776
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2459	73	0	27	35	100	0	0	1	71.7	72.7	22	62	177	392	797
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	1937	76	0	24	35	100	0	0	1	70.3	71.3	16	46	130	303	628
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2480	74	0	26	35	100	0	0	1	71.6	72.6	21	61	174	387	788
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2371	66	0	34	35	100	0	0	1	72.4	73.4	25	71	203	442	890
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2447	73	0	27	35	100	0	0	1	71.7	72.7	22	62	175	390	793
W I ST	n/o Anaheim St	446	85	1	14	35	100	0	0	1	62.2	63.2	3	8	24	73	169
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	4336	98	1	1	35	100	0	0	1	67.7	68.7	9	27	76	192	412
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	4687	98	1	1	35	100	0	0	1	68.0	69.0	10	29	81	204	436
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	4157	78	1	21	35	100	0	0	1	73.2	74.2	30	84	240	508	1013
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	3874	73	1	27	35	100	0	0	1	73.7	74.7	33	94	268	558	1105
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	3805	72	1	28	35	100	0	0	1	73.8	74.8	33	95	271	564	1115
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	3988	96	1	4	35	100	0	0	1	68.4	69.4	11	31	88	218	465
W PACIFIC COAST HIGHWAY	e/o Figueroa St	4024	96	1	3	35	100	0	0	1	68.3	69.3	11	30	86	214	457
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	3909	96	1	4	35	100	0	0	1	68.4	69.4	11	31	88	217	463
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	3650	76	1	23	35	100	0	0	1	73.0	74.0	28	81	230	490	980
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	4031	74	1	25	35	100	0	0	1	73.7	74.7	33	93	266	554	1097
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	3926	78	1	22	35	100	0	0	1	73.0	74.0	29	82	233	496	990
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	4145	81	1	18	35	100	0	0	1	72.7	73.7	27	76	215	464	931
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	706	32	0	68	35	100	0	0	1	69.9	70.9	15	42	120	283	590
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	751	38	0	62	35	100	0	0	1	69.8	70.8	15	41	118	278	581
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	4142	96	1	3	40	100	0	0	1	69.9	70.9	15	42	121	284	592

W SEPULVEDA BLVD	w/o NB I-110 off ramp	4222	96	1	3	40	100	0	0	1	70.0	71.0	15	43	123	288	601
W SEPULVEDA BLVD	w/o Figueroa St	3619	97	1	3	40	100	0	0	1	69.0	70.0	12	35	100	243	512
W SEPULVEDA BLVD	e/o Figueroa St	2078	97	1	2	40	100	0	0	1	66.2	67.2	7	20	56	148	324
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	4190	96	1	3	40	100	0	0	1	70.0	71.0	15	43	123	289	601
W WATER ST	between Fries Ave and Avalon Blvd	312	16	0	84	35	100	0	0	1	67.2	68.2	8	24	68	175	379
W WILLOW ST	between NB and SB Terminal Island Fwy	3596	96	1	3	35	100	0	0	1	67.6	68.6	9	26	75	190	408
W WILLOW ST	between Terminal Island Fwy and Santa Fe	4021	96	1	2	35	100	0	0	1	68.0	69.0	10	28	81	203	434
W WILLOW ST	between Santa Fe Ave and Easy Ave	3537	96	1	3	35	100	0	0	1	67.8	68.8	10	27	77	195	419
W WILLOW ST	e/o Easy Ave	4867	97	1	2	35	100	0	0	1	68.7	69.7	12	33	94	230	488
W WILLOW ST	w/o SB I-710 ramps	4025	97	1	2	35	100	0	0	1	67.6	68.6	9	26	75	191	411
W WILLOW ST	w/o NB I-710 on ramp	4144	97	1	2	35	100	0	0	1	67.8	68.8	10	28	78	197	423
SAN DIEGO FWY	SB e/o Wilmington Ave	20109	93	2	5	21	100	0	0	1	74.0	75.0	35	99	283	584	1152
SAN DIEGO FWY	SB w/o Wilmington Ave	20671	92	2	6	18	100	0	0	1	74.3	75.3	38	108	306	625	1226
SAN DIEGO FWY	SB s/o Carson St	19487	92	2	6	23	100	0	0	1	74.2	75.2	37	105	300	614	1207
SAN DIEGO FWY	NB n/o Carson St	17280	91	2	6	31	100	0	0	1	75.3	76.3	46	132	376	744	1439
SAN DIEGO FWY	NB n/o 213th St	18218	91	2	6	28	100	0	0	1	74.8	75.8	42	119	340	682	1329
SAN DIEGO FWY	NB e/o Avalon Blvd	17281	91	2	7	31	100	0	0	1	75.4	76.4	47	133	380	750	1450
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB w/o Avalon Blvd	18975	91	2	6	33	100	0	0	1	76.0	77.0	54	152	434	840	1609
SAN DIEGO FWY	SB e/o Avalon Blvd	18619	91	2	7	27	100	0	0	1	74.8	75.8	42	119	338	679	1323
SAN DIEGO FWY	NB w/o Wilmington Ave	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	NB e/o 218th St	20319	91	2	7	25	100	0	0	1	75.3	76.3	46	130	372	736	1425
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB s/o Carson St	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	SB n/o Carson St	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN GABRIEL AV	n/o PCH	225	20	0	80	30	100	0	0	1	65.0	66.0	5	15	43	119	266
TERMINAL ISLAND FWY	s/o PCH	2810	63	0	37	30	100	0	0	1	72.8	73.8	27	78	222	476	954
TERMINAL ISLAND FWY	n/o PCH	2465	67	0	33	30	100	0	0	1	71.8	72.8	22	63	181	400	812
TERMINAL ISLAND FWY	n/o Ocean Blvd	3502	65	0	35	30	100	0	0	1	73.6	74.6	32	91	259	543	1077
TERMINAL ISLAND FWY	NB s/o PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	SB n/o PCH	1125	64	0	36	49	100	0	0	1	72.1	73.1	23	67	190	418	845
TERMINAL ISLAND FWY	NB between Off and loop On ramp at PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	NB s/o PCH off ramp	2176	49	0	51	48	100	0	0	1	76.0	77.0	53	150	428	830	1593
TERMINAL ISLAND FWY	SB n/o Anaheim St	1120	72	0	28	49	100	0	0	1	71.2	72.2	19	55	158	357	732
TERMINAL ISLAND FWY	NB between Henry Ford Ave and Anaheim St	1726	55	0	45	49	100	0	0	1	74.6	75.6	40	114	325	658	1285
TERMINAL ISLAND FWY	NB n/o Ocean Blvd	1908	61	0	38	39	100	0	0	1	72.6	73.6	26	75	213	460	924
TERMINAL ISLAND FWY	SB n/o Ocean Blvd	1584	69	0	30	39	100	0	0	1	71.0	72.0	19	53	152	346	710
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2283	53	0	47	39	100	0	0	1	74.1	75.1	36	102	290	596	1174
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	e/o Seaside Ave	4985	80	1	19	27	100	0	0	1	72.5	73.5	26	73	208	451	908
TERMINAL ISLAND FWY	SB s/o Anaheim Way	1814	65	0	35	49	100	0	0	1	74.0	75.0	35	101	287	592	1166
TERMINAL ISLAND FWY	NB s/o Willow St	1353	66	0	33	25	100	0	0	1	68.9	69.9	12	34	97	237	501
TERMINAL ISLAND FWY	SB s/o PCH on ramp	1891	65	0	34	48	100	0	0	1	74.0	75.0	35	101	287	591	1165
TERMINAL ISLAND FWY	SB s/o PCH	1284	61	0	39	49	100	0	0	1	72.9	73.9	28	79	225	481	962
TERMINAL ISLAND FWY	NB n/o PCH	1340	69	0	30	49	100	0	0	1	72.2	73.2	24	69	196	428	864
TERMINAL ISLAND FWY	SB between loop Off and On ramp at PCH	1284	61	0	38	49	100	0	0	1	72.8	73.8	28	79	224	479	960
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2310	53	0	47	39	100	0	0	1	74.2	75.2	36	104	296	607	1194
TERMINAL WAY	w/o Ferry St	2434	58	0	42	24	100	0	0	1	72.4	73.4	25	71	203	442	890
TERMINAL WAY	w/o Eaire St	1905	54	0	46	33	100	0	0	1	72.3	73.3	25	70	199	434	875
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	743	26	0	74	30	100	0	0	1	69.8	70.8	14	41	118	278	581
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	542	19	0	81	31	100	0	0	1	68.9	69.9	12	34	98	238	504
TERMINAL WAY	s/o Navy Way	549	18	0	82	31	100	0	0	1	69.0	70.0	12	35	99	241	510
TERMINAL WAY	s/o Navy Way	884	26	0	74	29	100	0	0	1	70.5	71.5	17	48	137	316	653
W 9TH ST	e/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	85	195
W 9TH ST	s/o Anaheim St	1537	84	1	15	27	100	0	0	1	66.5	67.5	7	21	60	157	342
W 9TH ST	e/o Santa Fe Ave	1809	91	1	8	22	100	0	0	1	64.7	65.7	5	14	41	114	256
W 9TH ST	w/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	86	196
W 9TH ST	n/o Pier B St	96	34	0	66	38	100	0	0	1	61.6	62.6	3	7	21	65	153
W 9TH ST	w/o Santa Fe Ave	1839	83	1	17	20	100	0	0	1	67.5	68.5	9	26	73	187	403

W 9TH ST	s/o Pier B St	856	21	0	79	36	100	0	0	1	71.4	72.4	20	58	164	369	754
W 9TH ST	n/o Pier B St	315	28	0	72	36	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Harbor Ave	3311	93	1	6	26	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Santa Fe Ave	4489	82	1	17	24	100	0	0	1	71.4	72.4	20	58	165	371	757
W ANAHEIM ST	w/o Harbor Ave	3937	88	1	11	25	100	0	0	1	69.3	70.3	13	38	107	257	540
W ANAHEIM ST	w/o Seabright Ave	3538	83	1	16	26	100	0	0	1	70.2	71.2	16	45	129	301	625
W ANAHEIM ST	w/o E I St	4550	92	1	7	24	100	0	0	1	68.2	69.2	10	30	85	211	450
W ANAHEIM ST	w/o Figueroa PL	3972	91	1	8	24	100	0	0	1	68.4	69.4	11	31	88	218	464
W ANAHEIM ST	between Wilmington and Neptune Ave	3181	98	1	1	26	100	0	0	1	63.4	64.4	4	11	31	90	206
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	3602	98	1	1	25	100	0	0	1	63.6	64.6	4	11	32	93	212
W ANAHEIM ST	e/o Neptune	3195	98	1	1	26	100	0	0	1	63.2	64.2	4	10	30	87	199
W ANAHEIM ST	between Neptune Ave and Fries Ave	3063	98	1	1	26	100	0	0	1	63.3	64.3	4	11	30	88	201
W ANAHEIM ST	w/o Frigate Ave	3691	98	1	1	24	100	0	0	1	63.5	64.5	4	11	32	91	208
W ANAHEIM ST	e/o Figueroa PL	4409	92	1	8	23	100	0	0	1	68.4	69.4	11	31	89	219	467
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	3407	83	1	16	26	100	0	0	1	70.1	71.1	15	44	125	292	608
W ANAHEIM ST	between Fries Ave and Avalon Blvd	3641	98	1	1	25	100	0	0	1	63.8	64.8	4	12	34	97	219
W ANAHEIM ST	between I-710 SB and NB Ramps	4032	94	1	5	23	100	0	0	1	66.9	67.9	8	23	64	167	362
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2947	77	1	23	28	100	0	0	1	71.0	72.0	19	53	151	344	707
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	2409	78	1	21	30	100	0	0	1	70.0	71.0	15	44	124	291	606
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2917	78	1	21	29	100	0	0	1	70.7	71.7	18	50	143	328	677
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2714	72	1	28	29	100	0	0	1	71.5	72.5	21	59	167	375	765
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W I ST	n/o Anaheim St	875	87	1	12	26	100	0	0	1	63.1	64.1	4	10	29	85	196
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	8001	98	1	1	25	100	0	0	1	67.1	68.1	8	23	67	172	373
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	8552	98	1	1	24	100	0	0	1	67.4	68.4	9	25	71	181	392
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	5894	85	1	14	23	100	0	0	1	71.8	72.8	22	63	180	399	811
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	5846	80	1	20	19	100	0	0	1	73.4	74.4	31	88	250	527	1047
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	5737	80	1	19	19	100	0	0	1	73.2	74.2	30	85	242	512	1020
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	6514	97	1	2	27	100	0	0	1	67.8	68.8	10	27	78	196	420
W PACIFIC COAST HIGHWAY	e/o Figueroa St	6855	97	1	2	26	100	0	0	1	67.6	68.6	9	26	74	189	407
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	6425	97	1	2	29	100	0	0	1	68.3	69.3	11	30	86	214	456
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	5399	86	1	13	28	100	0	0	1	71.5	72.5	21	60	170	379	774
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	6025	81	1	18	16	100	0	0	1	73.6	74.6	32	92	261	547	1083
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	5307	84	1	15	21	100	0	0	1	71.7	72.7	22	61	175	389	791
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	5717	90	1	9	21	100	0	0	1	70.2	71.2	16	45	129	301	625
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	785	19	0	81	30	100	0	0	1	70.4	71.4	17	47	135	312	647
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	963	15	0	85	24	100	0	0	1	71.3	72.3	20	57	161	363	743
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	7322	96	1	3	24	100	0	0	1	67.7	68.7	9	27	76	192	413
W SEPULVEDA BLVD	w/o NB I-110 off ramp	7449	96	1	3	27	100	0	0	1	68.4	69.4	11	31	88	217	462
W SEPULVEDA BLVD	w/o Figueroa St	6324	97	1	2	29	100	0	0	1	68.0	69.0	10	28	80	202	432
W SEPULVEDA BLVD	e/o Figueroa St	3739	97	1	2	29	100	0	0	1	65.7	66.7	6	18	50	136	300
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	7414	96	1	3	23	100	0	0	1	67.8	68.8	10	27	77	195	419
W WATER ST	between Fries Ave and Avalon Blvd	343	56	0	44	30	100	0	0	1	64.4	65.4	5	13	38	108	242
W WILLOW ST	between NB and SB Terminal Island Fwy	5909	91	1	8	21	100	0	0	1	69.9	70.9	15	43	121	285	595
W WILLOW ST	between Terminal Island Fwy and Santa Fe	6681	96	1	2	16	100	0	0	1	66.7	67.7	8	22	61	160	350
W WILLOW ST	between Santa Fe Ave and Easy Ave	6247	96	1	3	19	100	0	0	1	66.7	67.7	8	22	62	163	354
W WILLOW ST	e/o Easy Ave	8543	97	1	2	11	100	0	0	1	68.7	69.7	11	33	93	228	484
W WILLOW ST	w/o SB I-710 ramps	6855	97	1	2	16	100	0	0	1	65.9	66.9	6	18	53	141	310
W WILLOW ST	w/o NB I-710 on ramp	7244	97	1	2	14	100	0	0	1	66.6	67.6	7	21	60	158	345

FHWA TRAFFIC NOISE CALCULATOR

SCIG 2023 NO PROJECT CONDITIONS TRAFFIC

ROADWAY	Segment	Peak Hour Volume	Vehicle Distribution %Auto	%MT	%HT	Vehicle Speed mph	Receiver Distance CL, ft	Grade % NL	FL	CNEL Correction	PREDICTED TRAFFIC NOISE LEVEL, dBA Leq @ Rec.	CNEL @ Rec.	DISTANCE TO CNEL CONTOURS 80	75	70	65	60
1ST ST	e/o East RD	554	10	0	90	25	100	0	0	1	73.4	74.4	31	89	254	533	1058
ACCESS RD	e/o Ferry St	362	53	0	47	30	100	0	0	1	64.9	65.9	5	15	42	117	261
ALAMEDA ST	n/o Anaheim St	1815	71	1	28	40	100	0	0	1	71.5	72.5	21	59	168	375	766
ALAMEDA ST	w/o Eubank Ave	2454	58	0	42	40	100	0	0	1	74.2	75.2	37	104	297	610	1198
ALAMEDA ST	s/o PCH	2147	62	1	38	40	100	0	0	1	73.3	74.3	30	86	244	517	1028
ALAMEDA ST	s/o Anaheim St	3947	71	1	28	40	100	0	0	1	74.8	75.8	42	119	339	681	1327
E 223RD ST	w/o I-405 Off ramps	3435	81	1	18	35	100	0	0	1	71.8	72.8	22	64	181	401	815
E ANAHEIM ST	between Avalon Blvd and Broad Ave	2208	98	1	1	35	100	0	0	1	64.4	65.4	5	13	38	108	243
E ANAHEIM ST	between Eubank Ave and Sanford St	2292	99	1	1	35	100	0	0	1	64.5	65.5	5	14	39	109	245
E ANAHEIM ST	between Sanford Ave and Sanford St	2364	99	1	1	35	100	0	0	1	64.6	65.6	5	14	40	111	249
E ANAHEIM ST	between Anaheim and Henry Ford	4454	87	1	13	35	100	0	0	1	71.9	72.9	23	64	183	404	820
E ANAHEIM ST	e/o Henry Ford Ave	3755	87	1	13	45	100	0	0	1	73.3	74.3	30	86	244	516	1027
E ANAHEIM ST	w/o E I St	3065	90	1	9	45	100	0	0	1	71.6	72.6	21	61	173	386	786
E ANAHEIM ST	e/o Sanford Ave	2321	99	1	1	45	100	0	0	1	67.6	68.6	9	26	75	190	409
E ANAHEIM ST	w/o Anaheim Way	3755	87	1	13	45	100	0	0	1	73.3	74.3	30	86	244	516	1027
E ANAHEIM ST	between Henry Ford Ave and Terminal Isla	3755	87	1	13	45	100	0	0	1	73.3	74.3	30	86	244	516	1027
E HARRY BRIDGES BLVD	e/o Avalon Blvd	2098	60	0	40	35	100	0	0	1	72.5	73.5	26	73	207	449	904
E I ST	between Terminal Island Fwy and Anaheim	1023	58	0	41	35	100	0	0	1	69.5	70.5	14	39	111	265	556
E OPP ST	w/o Farragut Ave	34	100	0	0	35	100	0	0	1	45.4	46.4	0	0	1	4	11
E SEPULVEDA BLVD	e/o Alameda St	3040	95	2	4	40	100	0	0	1	68.8	69.8	12	34	97	236	499
E SEPULVEDA BLVD	w/o Dolores St	2940	97	1	2	40	100	0	0	1	67.7	68.7	9	27	76	192	412
E SEPULVEDA BLVD	w/o Wilmington Ave	3773	96	1	3	40	100	0	0	1	69.4	70.4	13	38	108	258	542
E SEPULVEDA BLVD	e/o Wilmington Ave	2798	96	1	3	40	100	0	0	1	68.0	69.0	10	28	81	203	435
E SEPULVEDA BLVD	e/o Dolores St	2642	97	1	2	40	100	0	0	1	67.3	68.3	9	24	69	178	385
E SEPULVEDA BLVD	w/o Avalon Blvd	2517	97	1	2	40	100	0	0	1	67.2	68.2	8	24	68	176	381
EAST RD	n/o 1st St	374	8	0	92	26	100	0	0	1	67.5	68.5	9	26	73	186	400
EAST RD	s/o 1st St	249	14	0	86	37	100	0	0	1	66.6	67.6	7	21	60	158	345
FARRAGUT AVE	Between Terminal Island Fwy SB ramps and	872	54	0	45	35	100	0	0	1	69.2	70.2	13	36	104	250	526
FARRAGUT AVE	s/o E OPP St	24	100	0	0	35	100	0	0	1	43.9	44.9	0	0	1	3	9
FERRY ST	between Seaside Ave and Access Rd	1018	51	0	49	25	100	0	0	1	69.2	70.2	13	37	105	252	530
FERRY ST	between Terminal Way and Pitchard St	1809	46	0	54	25	100	0	0	1	72.1	73.1	24	67	191	420	849
FIGUEROA ST	n/o Anaheim St	1137	89	1	10	35	100	0	0	1	65.2	66.2	6	16	45	123	274
FIGUEROA ST	n/o PCH	2164	95	1	4	35	100	0	0	1	65.8	66.8	6	18	52	138	305
HARBOR FWY	n/o PCH off Ramp	13940	84	1	15	65	100	0	0	1	83.6	84.6	262	745	2122	3215	5550
HARBOR FWY	s/o Sepulveda Blvd	13353	84	1	15	65	100	0	0	1	83.5	84.5	255	726	2067	3145	5437
HARBOR FWY	n/o Sepulveda Blvd	13991	85	1	14	65	100	0	0	1	83.6	84.6	261	744	2119	3212	5544
HARBOR FWY	n/o 223rd St	14947	86	1	13	65	100	0	0	1	83.7	84.7	266	757	2156	3259	5620
HARBOR FWY	n/o 220th St	15625	86	1	13	65	100	0	0	1	83.8	84.8	272	775	2206	3323	5721
HARBOR FWY	n/o Carson St	16665	87	1	12	65	100	0	0	1	83.9	84.9	280	798	2273	3408	5856
HARBOR FWY	n/o Redondo Beach Blvd	19502	93	2	6	65	100	0	0	1	83.4	84.4	252	717	2042	3113	5386
HARBOR FWY	between 135 th St and Rosecrans Ave	19211	93	2	6	65	100	0	0	1	83.3	84.3	247	704	2004	3064	5308
HARBOR FWY	n/o 135th St	18899	93	2	6	65	100	0	0	1	83.3	84.3	244	694	1976	3028	5250
HARBOR FWY	n/o Alondra	18896	92	2	6	65	100	0	0	1	83.3	84.3	247	703	2003	3062	5306
HARBOR FWY	between Del Amo Blvd and Torrance Blv	16278	87	1	12	65	100	0	0	1	83.8	84.8	276	785	2237	3362	5782
HARBOR FWY	between 168th and Alondra	19752	92	2	6	65	100	0	0	1	83.6	84.6	260	740	2106	3195	5518
HARBOR FWY	n/o Del Amo Blvd	17581	88	1	11	65	100	0	0	1	84.0	85.0	288	819	2332	3483	5974
HARBOR FWY	n/o I-405	14813	88	1	10	65	100	0	0	1	83.1	84.1	237	674	1920	2955	5133
HARBOR FWY	s/o I-405	14780	88	1	10	65	100	0	0	1	83.1	84.1	236	673	1917	2950	5126
HARBOR FWY	s/o 182nd St	16342	90	1	9	65	100	0	0	1	83.2	84.2	243	691	1969	3018	5235
HARBOR FWY	between Artesia Blvd and 168th	16544	92	1	7	65	100	0	0	1	82.9	83.9	228	648	1846	2858	4977
HARBOR FWY	s/o SR-91	16721	92	2	7	65	100	0	0	1	82.9	83.9	227	647	1843	2854	4972
HARBOR FWY	s/o PCH off Ramp	12128	82	1	17	65	100	0	0	1	83.4	84.4	250	713	2030	3097	5361
HARBOR FWY	n/o El Segundo Blvd	18933	92	2	6	65	100	0	0	1	83.3	84.3	247	704	2005	3065	5309
HARBOR FWY	s/o El Segundo Blvd	18640	92	2	6	65	100	0	0	1	83.2	84.2	243	691	1968	3017	5233
HARBOR FWY	n/o Anaheim St	12830	84	1	15	65	100	0	0	1	83.3	84.3	249	708	2016	3079	5332

HARBOR FWY	s/o 120th St	18590	92	2	6	65	100	0	0	1	83.2	84.2	243	691	1968	3017	5233
HARBOR FWY	n/o 120th St	15627	92	2	6	65	100	0	0	1	82.6	83.6	212	603	1718	2689	4707
HARBOR FWY	n/o I-105	17637	92	2	6	65	100	0	0	1	83.0	84.0	231	657	1872	2891	5032
HARBOR FWY	n/o 108th St	20701	93	2	5	65	100	0	0	1	83.6	84.6	260	740	2108	3197	5521
HARBOR FWY	s/o 223rd St	15226	86	1	13	65	100	0	0	1	83.8	84.8	272	775	2207	3325	5723
HARBOR FWY	s/o 190th St	15021	88	1	11	65	100	0	0	1	83.3	84.3	244	694	1978	3029	5253
HARBOR PLZ	between Pier F Ave and Pico Ave	797	19	0	81	40	100	0	0	1	71.9	72.9	23	64	183	405	821
HARBOR SCENIC DR	w/o Goldenshore St	1677	28	0	72	40	100	0	0	1	74.6	75.6	40	114	325	657	1283
HARBOR SCENIC DR	s/o Shoreline Dr	2280	18	0	82	40	100	0	0	1	76.5	77.5	59	169	482	917	1746
HARBOR SCENIC DR	n/o Shoreline Dr	2785	16	0	84	40	100	0	0	1	77.5	78.5	73	207	589	1087	2042
HARBOR SCENIC WAY	e/o Queens Hwy	1110	22	0	78	40	100	0	0	1	73.2	74.2	30	84	240	509	1015
HARBOR SCENIC WAY	e/o Port Access Rd	1123	21	0	79	40	100	0	0	1	73.3	74.3	30	86	244	516	1027
HARBOR SCENIC WAY	w/o Port Access Rd	1123	21	0	79	40	100	0	0	1	73.3	74.3	30	86	244	516	1027
JOHN S GIBSON BLVD	n/o I-110 Ramps	2157	76	0	24	35	100	0	0	1	70.8	71.8	18	51	145	332	684
LONG BEACH FWY	n/o Imperial Hwy	19759	78	1	21	65	100	0	0	1	86.0	87.0	434	1237	3524	4939	8243
LONG BEACH FWY	s/o Imperial Hwy	21586	79	1	19	65	100	0	0	1	86.2	87.2	454	1294	3686	5131	8538
LONG BEACH FWY	n/o I-105	18588	77	1	22	65	100	0	0	1	85.9	86.9	427	1215	3460	4863	8127
LONG BEACH FWY	s/o I-105	18053	76	1	23	65	100	0	0	1	85.9	86.9	422	1201	3421	4816	8055
LONG BEACH FWY	n/o Rosecrans Ave	18384	76	1	22	65	100	0	0	1	85.9	86.9	424	1209	3443	4843	8096
LONG BEACH FWY	s/o Rosecrans Ave	26521	78	1	21	65	100	0	0	1	87.3	88.3	565	1608	4579	6164	10112
LONG BEACH FWY	n/o Alondra	26222	78	1	21	65	100	0	0	1	87.3	88.3	564	1606	4573	6158	10102
LONG BEACH FWY	between Alondra and Rosecrans	26515	78	1	21	65	100	0	0	1	87.3	88.3	566	1611	4587	6174	10127
LONG BEACH FWY	s/o Alondra	26042	78	1	21	65	100	0	0	1	87.3	88.3	565	1610	4586	6172	10124
LONG BEACH FWY	n/o SR-91	21000	74	1	25	65	100	0	0	1	86.8	87.8	513	1460	4159	5682	9381
LONG BEACH FWY	n/o Artesia Blvd	15648	68	1	31	65	100	0	0	1	86.2	87.2	447	1273	3626	5059	8429
LONG BEACH FWY	s/o Artesia Blvd	19367	67	1	32	65	100	0	0	1	87.2	88.2	556	1584	4510	6086	9994
LONG BEACH FWY	n/o Long Beach Blvd	20795	68	1	31	65	100	0	0	1	87.4	88.4	578	1647	4690	6290	10303
LONG BEACH FWY	s/o Long Beach Blvd	19198	65	1	34	65	100	0	0	1	87.3	88.3	571	1627	4633	6225	10205
LONG BEACH FWY	n/o Del Amo Blvd	20034	67	1	32	65	100	0	0	1	87.4	88.4	578	1647	4691	6292	10305
LONG BEACH FWY	s/o Del Amo Blvd Off ramp	19632	66	1	33	65	100	0	0	1	87.3	88.3	574	1633	4652	6248	10238
LONG BEACH FWY	s/o Del Amo Blvd	20599	67	1	32	65	100	0	0	1	87.4	88.4	585	1666	4746	6354	10399
LONG BEACH FWY	n/o Wardlow Rd	12815	56	1	43	65	100	0	0	1	86.4	87.4	468	1333	3796	5260	8736
LONG BEACH FWY	s/o Wardlow Rd	15644	62	1	37	65	100	0	0	1	86.7	87.7	505	1438	4097	5610	9272
LONG BEACH FWY	n/o Willow St	14934	66	1	33	65	100	0	0	1	86.1	87.1	446	1271	3619	5051	8416
LONG BEACH FWY	s/o Willow St	14788	61	1	39	65	100	0	0	1	86.6	87.6	493	1405	4002	5500	9104
LONG BEACH FWY	between off/of namps at Willow St	14816	60	1	39	65	100	0	0	1	86.7	87.7	497	1416	4034	5538	9161
LONG BEACH FWY	s/o Anaheim St	13129	65	1	34	65	100	0	0	1	85.7	86.7	406	1156	3293	4664	7819
LONG BEACH FWY	s/o PCH	13129	65	1	34	65	100	0	0	1	85.7	86.7	406	1156	3293	4664	7819
LONG BEACH FWY	n/o Anahiem St	13121	63	1	36	65	100	0	0	1	85.9	86.9	423	1204	3429	4826	8070
LONG BEACH FWY	s/o Firestone Blvd	21690	80	1	19	65	100	0	0	1	86.2	87.2	450	1281	3649	5087	8471
LONG BEACH FWY	s/o 9th St	5249	16	0	84	65	100	0	0	1	84.9	85.9	341	970	2764	4021	6821
LONG BEACH FWY	n/o Long Beach Blvd	19250	67	1	32	65	100	0	0	1	87.2	88.2	554	1577	4491	6064	9960
LONG BEACH FWY	n/o 9th St	5070	16	0	84	65	100	0	0	1	84.7	85.7	331	943	2685	3923	6667
LONG BEACH FWY	n/o 10th St	8621	47	0	52	65	100	0	0	1	85.3	86.3	373	1064	3029	4345	7326
LONG BEACH FWY	s/o On ramp at Del Amo Blvd	20071	66	1	33	65	100	0	0	1	87.4	88.4	581	1653	4709	6312	10336
LONG BEACH FWY	s/o Willow St	14145	58	1	41	65	100	0	0	1	86.6	87.6	493	1405	4000	5498	9101
LONG BEACH FWY	n/o Anaheim St	13485	64	1	36	65	100	0	0	1	86.0	87.0	429	1221	3477	4883	8158
N HENRY FORD AVE	n/o Terminal Island fwy	1210	63	0	37	40	100	0	0	1	70.6	71.6	17	50	141	324	670
N HENRY FORD AVE	n/o Anaheim St	477	36	0	64	40	100	0	0	1	68.7	69.7	12	33	94	231	489
N SEASIDE AVE	e/o Navy Way	6916	65	0	35	55	100	0	0	1	81.0	82.0	152	434	1237	2036	3642
N SEASIDE AVE	e/o Access Rd ramp	3547	72	0	28	55	100	0	0	1	77.4	78.4	71	203	578	1070	2012
N SEASIDE AVE	w/o Navy Way	7091	69	0	31	55	100	0	0	1	80.7	81.7	144	410	1169	1941	3485
N SEASIDE AVE	e/o Ferry St	1018	51	0	49	55	100	0	0	1	73.9	74.9	34	97	278	575	1135
N SEASIDE AVE	e/o Navy Way ramp	6910	56	0	43	55	100	0	0	1	81.7	82.7	178	506	1442	2318	4105
N SEASIDE AVE	e/o Navy Way	6916	65	0	35	55	100	0	0	1	81.0	82.0	152	434	1237	2036	3642
NAVY WAY	s/o Reeves Ave	2121	24	0	76	45	100	0	0	1	76.8	77.8	63	178	508	959	1819
NAVY WAY	s/o Terminal Way	2655	22	0	78	45	100	0	0	1	77.8	78.8	78	223	636	1161	2169
NEW DOCK ST	w/o Henry Ford Ave	924	25	0	75	45	100	0	0	1	73.1	74.1	29	84	238	505	1006
NEW DOCK ST	e/o Henry Ford Ave	1810	29	0	71	45	100	0	0	1	75.8	76.8	51	146	416	810	1558
NEW DOCK ST	w/o SB off ramp Terminal Island Fwy	1810	29	0	71	45	100	0	0	1	75.8	76.8	51	146	416	810	1558
NEW DOCK ST	w/o NB on ramp Terminal Island Fwy	1380	27	0	73	45	100	0	0	1	74.7	75.7	41	117	333	671	1308

NEW DOCK ST	between Terminal Island Fwy SB and NB Ra	1380	27	0	73	45	100	0	0	1	74.7	75.7	41	117	333	671	1308
PACIFIC COAST HIGHWAY	between Avalon Blvd and Eubank Ave	3603	95	1	4	45	100	0	0	1	70.9	71.9	18	52	149	340	700
PACIFIC COAST HIGHWAY	between Watson Ave and Eubank Ave	3551	95	1	4	45	100	0	0	1	70.9	71.9	18	52	148	338	696
PACIFIC COAST HIGHWAY	w/o Alameda St	3530	92	1	7	45	100	0	0	1	71.8	72.8	22	63	179	397	806
PACIFIC COAST HIGHWAY	w/o East Rd	3436	94	1	5	45	100	0	0	1	71.1	72.1	19	55	156	353	724
PACIFIC COAST HIGHWAY	w/o East Rd	3264	94	1	5	45	100	0	0	1	70.7	71.7	18	50	143	329	678
PACIFIC COAST HIGHWAY	between Watson Ave and Blinn Ave	3397	95	1	4	45	100	0	0	1	70.7	71.7	18	50	143	328	676
PICO AVE	s/o Ocean Blvd	990	41	0	59	35	100	0	0	1	70.7	71.7	18	51	144	330	680
PICO AVE	n/o Ocean Blvd	1354	32	0	68	35	100	0	0	1	72.7	73.7	27	75	215	463	930
PICO AVE	n/o Pier C St	2166	32	0	68	35	100	0	0	1	74.7	75.7	41	117	332	670	1306
PICO AVE	s/o Pier C St	1759	32	0	68	35	100	0	0	1	73.8	74.8	34	96	272	566	1118
PICO AVE	n/o Pier DSt	1756	32	0	68	35	100	0	0	1	73.8	74.8	34	96	272	566	1118
PIER A WAY	e/o Henry Ford Ave	375	27	0	73	35	100	0	0	1	67.4	68.4	9	25	71	182	393
PIER A WAY	e/o Henry Ford Ave	497	32	0	68	35	100	0	0	1	68.3	69.3	11	30	87	215	458
PIER A WAY	e/o Henry Ford Ave	592	27	0	73	35	100	0	0	1	69.4	70.4	13	38	108	260	545
PIER A WAY	between Terminal Island Fwy and Henry Fo	57	2	0	98	35	100	0	0	1	60.4	61.4	2	6	17	53	126
PIER A WAY	n/o Terminal Island Fwy	253	37	0	63	35	100	0	0	1	65.1	66.1	5	15	44	121	270
PIER A WAY	e/o Henry Ford Ave	230	41	0	59	35	100	0	0	1	64.4	65.4	5	13	38	107	241
PIER A WAY	e/o Henry Ford Ave	251	29	0	71	35	100	0	0	1	65.5	66.5	6	17	48	131	290
PIER B ST	s/o 9th St	723	37	0	63	35	100	0	0	1	69.7	70.7	14	40	115	273	571
PIER B ST	w/o Edison Ave	1034	62	0	38	35	100	0	0	1	69.2	70.2	13	37	104	251	528
PIER B ST	n/o Pier A way	385	26	0	74	35	100	0	0	1	67.6	68.6	9	26	74	188	404
PIER C ST	w/o Pier B St	477	27	0	73	35	100	0	0	1	68.4	69.4	11	31	89	219	466
PIER C ST	w/o Pier B St	406	15	0	85	35	100	0	0	1	68.4	69.4	11	31	88	217	462
PIER D AVE	s/o Pier D St	260	75	0	25	35	100	0	0	1	61.7	62.7	3	8	22	66	155
PIER D ST	w/o I-710	609	32	0	68	35	100	0	0	1	69.2	70.2	13	37	105	253	532
PIER F AVE	s/o Harbor Plaza	759	15	0	85	35	100	0	0	1	71.1	72.1	19	54	155	351	719
PIER G AV	s/o Harbor Plaza	981	2	0	98	35	100	0	0	1	72.8	73.8	27	77	220	473	948
PIER G AV	s/o Harbor Plaza	981	2	0	98	35	100	0	0	1	72.8	73.8	27	77	220	473	948
PIER J WAY	e/o Panorama Dr	844	31	0	69	35	100	0	0	1	70.7	71.7	18	50	142	326	674
PORT ACCESS RD	e/o Ocean Blvd Ramps	2264	26	0	74	35	100	0	0	1	75.3	76.3	46	130	371	736	1424
PORT ACCESS RD	n/o New Dock St	768	16	0	84	35	100	0	0	1	71.1	72.1	19	54	154	349	717
PORT ACCESS RD	n/o New Dock St	723	15	0	85	35	100	0	0	1	70.9	71.9	18	52	148	337	693
PORT ACCESS RD	s/o Pier J way	1078	21	0	79	35	100	0	0	1	72.3	73.3	25	70	199	434	876
PORT ACCESS RD	s/o Pier J way	844	31	0	69	35	100	0	0	1	70.7	71.7	18	50	142	326	674
PORT ACCESS RD	n/o Pier J way	1078	21	0	79	35	100	0	0	1	72.3	73.3	25	70	199	434	876
PORT ACCESS RD	s/o Harbor Scenic way	1065	22	0	78	35	100	0	0	1	72.2	73.2	24	69	196	428	865
QUEENSWAY DR	s/o Harbor Scenic Dr	725	11	0	89	35	100	0	0	1	71.1	72.1	19	54	154	350	718
S ALAMEDA ST	n/o Wardlow Rd	2063	56	1	43	35	100	0	0	1	72.7	73.7	27	77	219	470	943
S FRIES AVE	s/o Water St	897	22	0	78	35	100	0	0	1	71.5	72.5	21	59	167	375	765
S FRIES AVE	between Harry Bridges Blvd and Water St	578	15	0	85	35	100	0	0	1	69.9	70.9	15	42	120	283	591
S HARBOR SCENIC DR	s/o Shoreline Dr	735	14	0	86	40	100	0	0	1	71.8	72.8	22	63	179	396	805
S HARBOR SCENIC DR	w/o Goldenshore St	1817	24	0	76	40	100	0	0	1	75.2	76.2	45	128	366	727	1408
S HARBOR SCENIC DR	e/o Goldenshore St	2364	17	0	83	40	100	0	0	1	76.7	77.7	62	176	502	950	1803
S HARBOR SCENIC DR	w/o Panorama Dr	2183	36	0	64	40	100	0	0	1	75.3	76.3	46	132	376	743	1438
S PICO AVE	s/o Embarcadero	904	27	0	73	35	100	0	0	1	71.2	72.2	20	56	159	358	734
S PICO AVE	n/o Harbor Scenic Dr ramp	2034	14	0	86	35	100	0	0	1	75.4	76.4	47	133	380	751	1451
S PICO AVE	s/o Harbor Scenic Dr ramp	1892	13	0	87	35	100	0	0	1	75.1	76.1	45	127	362	720	1396
SAN DIEGO FWY	e/o I-110	22075	90	2	7	65	100	0	0	1	84.3	85.3	306	870	2478	3667	6264
SAN DIEGO FWY	e/o Wilmington Blvd	21178	90	2	7	65	100	0	0	1	84.2	85.2	295	841	2396	3564	6102
SAN DIEGO FWY	w/o Santa Fe Ave	22949	89	2	9	65	100	0	0	1	84.8	85.8	337	959	2731	3980	6756
SAN DIEGO FWY	e/o 218th St	24010	89	2	9	65	100	0	0	1	85.0	86.0	351	999	2846	4122	6977
SAN DIEGO FWY	w/o Alameda St	22754	91	2	7	65	100	0	0	1	84.4	85.4	307	874	2488	3679	6283
SAN DIEGO FWY	e/o Wilmington Ave	20886	91	2	7	65	100	0	0	1	84.1	85.1	288	822	2340	3493	5989
SAN DIEGO FWY	w/o Wilmington Ave	21332	90	2	7	65	100	0	0	1	84.2	85.2	297	845	2406	3575	6120
SAN DIEGO FWY	s/o Carson St	21005	90	2	7	65	100	0	0	1	84.2	85.2	295	839	2389	3555	6087
SAN DIEGO FWY	n/o Carson St	20717	90	2	7	65	100	0	0	1	84.1	85.1	290	827	2354	3511	6018
SAN DIEGO FWY	n/o 213th St	20492	90	2	7	65	100	0	0	1	84.1	85.1	288	821	2337	3490	5984
SAN DIEGO FWY	e/o Avalon Blvd	19303	90	2	8	65	100	0	0	1	83.8	84.8	276	785	2237	3362	5783
SAN DIEGO FWY	w/o Avalon Blvd	20231	90	2	8	65	100	0	0	1	84.0	85.0	285	813	2314	3460	5938
SAN GABRIEL AV	n/o PCH	305	20	0	80	45	100	0	0	1	68.6	69.6	11	32	91	224	477

TERMINAL ISLAND FWY	s/o PCH	1779	69	0	31	55	100	0	0	1	74.7	75.7	41	116	332	669	1305
TERMINAL ISLAND FWY	n/o PCH	1575	89	0	10	55	100	0	0	1	71.2	72.2	20	56	160	361	739
TERMINAL ISLAND FWY	between Off and loop On ramp at PCH	1775	69	0	31	55	100	0	0	1	74.7	75.7	41	117	332	669	1306
TERMINAL ISLAND FWY	s/o PCH off ramp	3153	54	0	46	55	100	0	0	1	78.6	79.6	91	260	739	1317	2438
TERMINAL ISLAND FWY	between Henry Ford Ave and Anaheim St	2300	46	0	54	55	100	0	0	1	77.8	78.8	77	220	626	1145	2141
TERMINAL ISLAND FWY	n/o Ocean Blvd	3171	44	0	56	35	100	0	0	1	75.6	76.6	49	140	399	783	1508
TERMINAL ISLAND FWY	s/o Henry Ford Ave	4338	43	0	57	35	100	0	0	1	77.0	78.0	66	189	537	1006	1901
TERMINAL ISLAND FWY	e/o Seaside Ave	6924	75	0	24	35	100	0	0	1	75.9	76.9	52	147	420	816	1568
TERMINAL ISLAND FWY	s/o Willow St	1575	89	0	10	35	100	0	0	1	66.7	67.7	8	22	62	162	354
TERMINAL WAY	w/o Ferry St	2250	45	0	55	35	100	0	0	1	74.0	75.0	35	101	288	593	1167
TERMINAL WAY	w/o Eaire St	1945	44	0	56	35	100	0	0	1	73.5	74.5	31	89	254	534	1059
TERMINAL WAY	s/o Navy Way	1746	25	0	75	35	100	0	0	1	74.2	75.2	36	103	295	605	1189
TERMINAL WAY	s/o Navy Way	1070	26	0	74	35	100	0	0	1	72.0	73.0	23	65	186	411	832
TERMINAL WAY	s/o Navy Way	1746	25	0	75	35	100	0	0	1	74.2	75.2	36	103	295	605	1189
TERMINAL WAY	s/o Navy Way	675	24	0	76	35	100	0	0	1	70.1	71.1	16	44	126	295	614
TERMINAL WAY	s/o Navy Way	695	23	0	77	35	100	0	0	1	70.3	71.3	16	46	130	303	630
TERMINAL WAY	s/o Navy Way	1191	26	0	74	35	100	0	0	1	72.5	73.5	25	72	206	448	901
W 9TH ST	e/o Caspian Ave	1153	92	1	8	35	100	0	0	1	64.6	65.6	5	14	40	112	251
W 9TH ST	s/o Anaheim St	1315	87	1	13	35	100	0	0	1	66.6	67.6	7	21	60	158	345
W 9TH ST	e/o Santa Fe Ave	1450	91	1	8	35	100	0	0	1	65.7	66.7	6	18	50	135	298
W 9TH ST	w/o Caspian Ave	1153	92	1	8	35	100	0	0	1	64.6	65.6	5	14	40	112	251
W 9TH ST	n/o Pier B St	91	30	0	70	35	100	0	0	1	61.1	62.1	2	7	19	60	141
W 9TH ST	w/o Santa Fe Ave	1658	83	0	16	35	100	0	0	1	68.3	69.3	11	31	87	215	459
W 9TH ST	s/o Pier B St	811	15	0	85	35	100	0	0	1	71.3	72.3	20	57	163	367	750
W 9TH ST	n/o Pier B St	623	26	0	74	35	100	0	0	1	69.7	70.7	14	40	115	273	571
W ANAHEIM ST	e/o Harbor Ave	2584	91	1	8	35	100	0	0	1	68.2	69.2	11	30	85	212	453
W ANAHEIM ST	e/o Santa Fe Ave	3680	79	1	21	35	100	0	0	1	72.6	73.6	26	74	212	458	920
W ANAHEIM ST	w/o Harbor Ave	3131	85	1	14	35	100	0	0	1	70.6	71.6	17	49	140	322	665
W ANAHEIM ST	w/o Seabright Ave	2799	78	1	21	35	100	0	0	1	71.4	72.4	20	58	165	371	757
W ANAHEIM ST	w/o E I St	3065	90	1	9	35	100	0	0	1	69.3	70.3	13	37	107	256	539
W ANAHEIM ST	w/o Figueroa PL	2270	92	1	8	35	100	0	0	1	67.6	68.6	9	26	74	189	407
W ANAHEIM ST	between Wilmington and Neptune Ave	2130	97	1	2	35	100	0	0	1	64.8	65.8	5	14	41	114	256
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	2055	97	1	2	35	100	0	0	1	64.6	65.6	5	14	40	111	250
W ANAHEIM ST	e/o Neptune	2153	98	1	1	35	100	0	0	1	64.7	65.7	5	14	40	112	252
W ANAHEIM ST	between Neptune Ave and Fries Ave	2067	98	1	1	35	100	0	0	1	64.5	65.5	5	14	39	110	247
W ANAHEIM ST	w/o Frigate Ave	2237	98	1	2	35	100	0	0	1	64.9	65.9	5	15	43	118	263
W ANAHEIM ST	e/o Figueroa PL	2729	92	1	7	35	100	0	0	1	68.3	69.3	11	30	86	214	455
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	2650	79	1	20	35	100	0	0	1	71.1	72.1	19	55	156	352	723
W ANAHEIM ST	between Fries Ave and Avalon Blvd	2394	98	1	2	35	100	0	0	1	65.2	66.2	6	16	45	124	275
W ANAHEIM ST	between I-710 SB and NB Ramps	2789	92	1	7	35	100	0	0	1	68.4	69.4	11	31	88	219	465
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2239	72	0	28	35	100	0	0	1	71.4	72.4	20	58	166	373	761
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2429	74	0	26	35	100	0	0	1	71.5	72.5	21	60	170	380	775
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	1898	77	0	23	35	100	0	0	1	70.0	71.0	15	43	123	289	602
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2447	75	0	25	35	100	0	0	1	71.4	72.4	21	59	167	374	763
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2351	66	0	33	35	100	0	0	1	72.3	73.3	25	71	201	437	882
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2420	74	0	26	35	100	0	0	1	71.5	72.5	21	60	170	379	773
W I ST	n/o Anaheim St	446	85	1	14	35	100	0	0	1	62.2	63.2	3	8	24	73	169
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	4350	98	1	1	35	100	0	0	1	67.7	68.7	9	27	77	194	416
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	4697	98	1	1	35	100	0	0	1	68.0	69.0	10	29	82	205	438
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	4266	77	1	23	35	100	0	0	1	73.5	74.5	32	91	259	542	1074
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	4105	69	1	30	35	100	0	0	1	74.4	75.4	38	108	308	627	1230
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	4009	69	1	31	35	100	0	0	1	74.3	75.3	38	107	305	623	1222
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	4014	96	1	4	35	100	0	0	1	68.5	69.5	11	32	90	223	473
W PACIFIC COAST HIGHWAY	e/o Figueroa St	4043	96	1	3	35	100	0	0	1	68.4	69.4	11	31	88	218	464
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	3934	95	1	4	35	100	0	0	1	68.5	69.5	11	32	90	222	471
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	3619	77	1	22	35	100	0	0	1	72.7	73.7	27	76	217	467	938
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	4227	71	1	28	35	100	0	0	1	74.2	75.2	37	105	299	613	1203
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	4028	76	1	23	35	100	0	0	1	73.4	74.4	31	88	250	527	1048
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	3924	86	1	13	35	100	0	0	1	71.4	72.4	20	58	166	372	759
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	810	27	0	73	35	100	0	0	1	70.7	71.7	18	51	144	330	680
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	896	31	0	69	35	100	0	0	1	70.9	71.9	19	53	150	342	704
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	4145	96	1	3	40	100	0	0	1	69.9	70.9	15	42	121	285	594

W SEPULVEDA BLVD	w/o NB I-110 off ramp	4228	96	1	3	40	100	0	0	1	70.0	71.0	15	43	123	290	603
W SEPULVEDA BLVD	w/o Figueroa St	3624	96	1	3	40	100	0	0	1	69.0	70.0	12	35	101	244	516
W SEPULVEDA BLVD	e/o Figueroa St	2081	97	1	2	40	100	0	0	1	66.2	67.2	7	20	56	148	325
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	4193	96	1	3	40	100	0	0	1	70.0	71.0	15	43	123	289	602
W WATER ST	between Fries Ave and Avalon Blvd	312	16	0	84	35	100	0	0	1	67.2	68.2	8	24	68	175	379
W WILLOW ST	between NB and SB Terminal Island Fwy	3677	95	1	4	35	100	0	0	1	68.3	69.3	11	31	87	216	459
W WILLOW ST	between Terminal Island Fwy and Santa Fe	4052	96	1	2	35	100	0	0	1	68.0	69.0	10	29	81	204	436
W WILLOW ST	between Santa Fe Ave and Easy Ave	3572	96	1	3	35	100	0	0	1	67.8	68.8	10	27	78	196	421
W WILLOW ST	e/o Easy Ave	4902	97	1	2	35	100	0	0	1	68.7	69.7	12	33	94	231	490
W WILLOW ST	w/o SB I-710 ramps	4051	97	1	2	35	100	0	0	1	67.7	68.7	9	27	76	192	412
W WILLOW ST	w/o NB I-710 on ramp	4171	97	1	2	35	100	0	0	1	67.9	68.9	10	28	79	198	425
SAN DIEGO FWY	SB e/o Wilmington Ave	20109	93	2	5	21	100	0	0	1	74.0	75.0	35	99	283	584	1152
SAN DIEGO FWY	SB w/o Wilmington Ave	20671	92	2	6	18	100	0	0	1	74.3	75.3	38	108	306	625	1226
SAN DIEGO FWY	SB s/o Carson St	19487	92	2	6	23	100	0	0	1	74.2	75.2	37	105	300	614	1207
SAN DIEGO FWY	NB n/o Carson St	17280	91	2	6	31	100	0	0	1	75.3	76.3	46	132	376	744	1439
SAN DIEGO FWY	NB n/o 213th St	18218	91	2	6	28	100	0	0	1	74.8	75.8	42	119	340	682	1329
SAN DIEGO FWY	NB e/o Avalon Blvd	17281	91	2	7	31	100	0	0	1	75.4	76.4	47	133	380	750	1450
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB w/o Avalon Blvd	18975	91	2	6	33	100	0	0	1	76.0	77.0	54	152	434	840	1609
SAN DIEGO FWY	SB e/o Avalon Blvd	18619	91	2	7	27	100	0	0	1	74.8	75.8	42	119	338	679	1323
SAN DIEGO FWY	NB w/o Wilmington Ave	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	NB e/o 218th St	20319	91	2	7	25	100	0	0	1	75.3	76.3	46	130	372	736	1425
SAN DIEGO FWY	SB e/o Avalon Blvd	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN DIEGO FWY	NB s/o Carson St	18479	92	2	6	27	100	0	0	1	74.7	75.7	40	115	328	662	1292
SAN DIEGO FWY	SB n/o Carson St	19113	91	2	6	25	100	0	0	1	74.6	75.6	40	114	324	656	1282
SAN GABRIEL AV	n/o PCH	225	20	0	80	30	100	0	0	1	65.0	66.0	5	15	43	119	266
TERMINAL ISLAND FWY	s/o PCH	2810	63	0	37	30	100	0	0	1	72.8	73.8	27	78	222	476	954
TERMINAL ISLAND FWY	n/o PCH	2465	67	0	33	30	100	0	0	1	71.8	72.8	22	63	181	400	812
TERMINAL ISLAND FWY	n/o Ocean Blvd	3502	65	0	35	30	100	0	0	1	73.6	74.6	32	91	259	543	1077
TERMINAL ISLAND FWY	NB s/o PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	SB n/o PCH	1125	64	0	36	49	100	0	0	1	72.1	73.1	23	67	190	418	845
TERMINAL ISLAND FWY	NB between Off and loop On ramp at PCH	1526	65	0	35	49	100	0	0	1	73.2	74.2	30	85	242	512	1019
TERMINAL ISLAND FWY	NB s/o PCH off ramp	2176	49	0	51	48	100	0	0	1	76.0	77.0	53	150	428	830	1593
TERMINAL ISLAND FWY	SB n/o Anaheim St	1120	72	0	28	49	100	0	0	1	71.2	72.2	19	55	158	357	732
TERMINAL ISLAND FWY	NB between Henry Ford Ave and Anaheim St	1726	55	0	45	49	100	0	0	1	74.6	75.6	40	114	325	658	1285
TERMINAL ISLAND FWY	NB n/o Ocean Blvd	1908	61	0	38	39	100	0	0	1	72.6	73.6	26	75	213	460	924
TERMINAL ISLAND FWY	SB n/o Ocean Blvd	1584	69	0	30	39	100	0	0	1	71.0	72.0	19	53	152	346	710
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2283	53	0	47	39	100	0	0	1	74.1	75.1	36	102	290	596	1174
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	e/o Seaside Ave	4985	80	1	19	27	100	0	0	1	72.5	73.5	26	73	208	451	908
TERMINAL ISLAND FWY	SB s/o Anaheim Way	1814	65	0	35	49	100	0	0	1	74.0	75.0	35	101	287	592	1166
TERMINAL ISLAND FWY	NB s/o Willow St	1353	66	0	33	25	100	0	0	1	68.9	69.9	12	34	97	237	501
TERMINAL ISLAND FWY	SB s/o PCH on ramp	1891	65	0	34	48	100	0	0	1	74.0	75.0	35	101	287	591	1165
TERMINAL ISLAND FWY	SB s/o PCH	1284	61	0	39	49	100	0	0	1	72.9	73.9	28	79	225	481	962
TERMINAL ISLAND FWY	NB n/o PCH	1340	69	0	30	49	100	0	0	1	72.2	73.2	24	69	196	428	864
TERMINAL ISLAND FWY	SB between loop Off and On ramp at PCH	1284	61	0	38	49	100	0	0	1	72.8	73.8	28	79	224	479	960
TERMINAL ISLAND FWY	SB s/o Henry Ford Ave	2150	61	0	38	39	100	0	0	1	73.1	74.1	29	83	236	502	1002
TERMINAL ISLAND FWY	s/o Henry Ford Ave	2310	53	0	47	39	100	0	0	1	74.2	75.2	36	104	296	607	1194
TERMINAL WAY	w/o Ferry St	2434	58	0	42	24	100	0	0	1	72.4	73.4	25	71	203	442	890
TERMINAL WAY	w/o Eaire St	1905	54	0	46	33	100	0	0	1	72.3	73.3	25	70	199	434	875
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	743	26	0	74	30	100	0	0	1	69.8	70.8	14	41	118	278	581
TERMINAL WAY	s/o Navy Way	1285	23	0	77	29	100	0	0	1	72.2	73.2	24	69	197	430	868
TERMINAL WAY	s/o Navy Way	542	19	0	81	31	100	0	0	1	68.9	69.9	12	34	98	238	504
TERMINAL WAY	s/o Navy Way	549	18	0	82	31	100	0	0	1	69.0	70.0	12	35	99	241	510
TERMINAL WAY	s/o Navy Way	884	26	0	74	29	100	0	0	1	70.5	71.5	17	48	137	316	653
W 9TH ST	e/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	85	195
W 9TH ST	s/o Anaheim St	1537	84	1	15	27	100	0	0	1	66.5	67.5	7	21	60	157	342
W 9TH ST	e/o Santa Fe Ave	1809	91	1	8	22	100	0	0	1	64.7	65.7	5	14	41	114	256
W 9TH ST	w/o Caspian Ave	1525	93	1	6	25	100	0	0	1	63.1	64.1	4	10	29	86	196
W 9TH ST	n/o Pier B St	96	34	0	66	38	100	0	0	1	61.6	62.6	3	7	21	65	153
W 9TH ST	w/o Santa Fe Ave	1839	83	1	17	20	100	0	0	1	67.5	68.5	9	26	73	187	403

W 9TH ST	s/o Pier B St	856	21	0	79	36	100	0	0	1	71.4	72.4	20	58	164	369	754
W 9TH ST	n/o Pier B St	315	28	0	72	36	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Harbor Ave	3311	93	1	6	26	100	0	0	1	66.8	67.8	8	22	63	164	356
W ANAHEIM ST	e/o Santa Fe Ave	4489	82	1	17	24	100	0	0	1	71.4	72.4	20	58	165	371	757
W ANAHEIM ST	w/o Harbor Ave	3937	88	1	11	25	100	0	0	1	69.3	70.3	13	38	107	257	540
W ANAHEIM ST	w/o Seabright Ave	3538	83	1	16	26	100	0	0	1	70.2	71.2	16	45	129	301	625
W ANAHEIM ST	w/o E I St	4550	92	1	7	24	100	0	0	1	68.2	69.2	10	30	85	211	450
W ANAHEIM ST	w/o Figueroa PL	3972	91	1	8	24	100	0	0	1	68.4	69.4	11	31	88	218	464
W ANAHEIM ST	between Wilmington and Neptune Ave	3181	98	1	1	26	100	0	0	1	63.4	64.4	4	11	31	90	206
W ANAHEIM ST	between Frigate Ave and Wilmington Blvd	3602	98	1	1	25	100	0	0	1	63.6	64.6	4	11	32	93	212
W ANAHEIM ST	e/o Neptune	3195	98	1	1	26	100	0	0	1	63.2	64.2	4	10	30	87	199
W ANAHEIM ST	between Neptune Ave and Fries Ave	3063	98	1	1	26	100	0	0	1	63.3	64.3	4	11	30	88	201
W ANAHEIM ST	w/o Frigate Ave	3691	98	1	1	24	100	0	0	1	63.5	64.5	4	11	32	91	208
W ANAHEIM ST	e/o Figueroa PL	4409	92	1	8	23	100	0	0	1	68.4	69.4	11	31	89	219	467
W ANAHEIM ST	between Seabright Ave and Santa Fe Ave	3407	83	1	16	26	100	0	0	1	70.1	71.1	15	44	125	292	608
W ANAHEIM ST	between Fries Ave and Avalon Blvd	3641	98	1	1	25	100	0	0	1	63.8	64.8	4	12	34	97	219
W ANAHEIM ST	between I-710 SB and NB Ramps	4032	94	1	5	23	100	0	0	1	66.9	67.9	8	23	64	167	362
W HARRY BRIDGES BLVD	between Wilmington Blvd and Neptune Ave	2947	77	1	23	28	100	0	0	1	71.0	72.0	19	53	151	344	707
W HARRY BRIDGES BLVD	between Hawaiian Ave and Wilmington Blvd	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W HARRY BRIDGES BLVD	between Neptune Ave and Fries Ave	2409	78	1	21	30	100	0	0	1	70.0	71.0	15	44	124	291	606
W HARRY BRIDGES BLVD	between Figueroa St and Mar Vista Ave	2917	78	1	21	29	100	0	0	1	70.7	71.7	18	50	143	328	677
W HARRY BRIDGES BLVD	between Fries Ave and Avalon Blvd	2714	72	1	28	29	100	0	0	1	71.5	72.5	21	59	167	375	765
W HARRY BRIDGES BLVD	between Mar Vista Ave and Hawaiian Ave	2916	78	1	21	29	100	0	0	1	70.8	71.8	18	51	146	334	688
W I ST	n/o Anaheim St	875	87	1	12	26	100	0	0	1	63.1	64.1	4	10	29	85	196
W PACIFIC COAST HIGHWAY	between I-110 SB off ramp and Figueroa S	8001	98	1	1	25	100	0	0	1	67.1	68.1	8	23	67	172	373
W PACIFIC COAST HIGHWAY	w/o I-110 SB off ramp	8552	98	1	1	24	100	0	0	1	67.4	68.4	9	25	71	181	392
W PACIFIC COAST HIGHWAY	between I-710 NB and SB ramps	5894	85	1	14	23	100	0	0	1	71.8	72.8	22	63	180	399	811
W PACIFIC COAST HIGHWAY	e/o San Gabriel Ave	5846	80	1	20	19	100	0	0	1	73.4	74.4	31	88	250	527	1047
W PACIFIC COAST HIGHWAY	between San Gabriel Ave and Santa Fe Ave	5737	80	1	19	19	100	0	0	1	73.2	74.2	30	85	242	512	1020
W PACIFIC COAST HIGHWAY	e/o Wilmington Blvd	6514	97	1	2	27	100	0	0	1	67.8	68.8	10	27	78	196	420
W PACIFIC COAST HIGHWAY	e/o Figueroa St	6855	97	1	2	26	100	0	0	1	67.6	68.6	9	26	74	189	407
W PACIFIC COAST HIGHWAY	between Neptune Ave and Avalon Blvd	6425	97	1	2	29	100	0	0	1	68.3	69.3	11	30	86	214	456
W PACIFIC COAST HIGHWAY	between Terminal Island Fwy SB and NB ra	5399	86	1	13	28	100	0	0	1	71.5	72.5	21	60	170	379	774
W PACIFIC COAST HIGHWAY	e/o Santa Fe Ave	6025	81	1	18	16	100	0	0	1	73.6	74.6	32	92	261	547	1083
W PACIFIC COAST HIGHWAY	e/o Harbor Ave	5307	84	1	15	21	100	0	0	1	71.7	72.7	22	61	175	389	791
W PACIFIC COAST HIGHWAY	w/o Termial Island Fwy	5717	90	1	9	21	100	0	0	1	70.2	71.2	16	45	129	301	625
W PANORAMA DR	between Queens Hwy and Harbor Scenic Dr	785	19	0	81	30	100	0	0	1	70.4	71.4	17	47	135	312	647
W PANORAMA DR	between Harbor Scenic Dr and Pier J Way	963	15	0	85	24	100	0	0	1	71.3	72.3	20	57	161	363	743
W SEPULVEDA BLVD	e/o SB I-110 off Ramp	7322	96	1	3	24	100	0	0	1	67.7	68.7	9	27	76	192	413
W SEPULVEDA BLVD	w/o NB I-110 off ramp	7449	96	1	3	27	100	0	0	1	68.4	69.4	11	31	88	217	462
W SEPULVEDA BLVD	w/o Figueroa St	6324	97	1	2	29	100	0	0	1	68.0	69.0	10	28	80	202	432
W SEPULVEDA BLVD	e/o Figueroa St	3739	97	1	2	29	100	0	0	1	65.7	66.7	6	18	50	136	300
W SEPULVEDA BLVD	between SB and NB I-110 Ramps	7414	96	1	3	23	100	0	0	1	67.8	68.8	10	27	77	195	419
W WATER ST	between Fries Ave and Avalon Blvd	343	56	0	44	30	100	0	0	1	64.4	65.4	5	13	38	108	242
W WILLOW ST	between NB and SB Terminal Island Fwy	5909	91	1	8	21	100	0	0	1	69.9	70.9	15	43	121	285	595
W WILLOW ST	between Terminal Island Fwy and Santa Fe	6681	96	1	2	16	100	0	0	1	66.7	67.7	8	22	61	160	350
W WILLOW ST	between Santa Fe Ave and Easy Ave	6247	96	1	3	19	100	0	0	1	66.7	67.7	8	22	62	163	354
W WILLOW ST	e/o Easy Ave	8543	97	1	2	11	100	0	0	1	68.7	69.7	11	33	93	228	484
W WILLOW ST	w/o SB I-710 ramps	6855	97	1	2	16	100	0	0	1	65.9	66.9	6	18	53	141	310
W WILLOW ST	w/o NB I-710 on ramp	7244	97	1	2	14	100	0	0	1	66.6	67.6	7	21	60	158	345

11 Noise Model Input and Output Data

AGI utilized the CadnaA Noise Model to evaluate the construction and operations noise from the Project. The CadnaA noise model uses industry standard acoustical algorithms for predicting construction and operations noise propagation, absorption, and diffraction. A three dimensional grid is prepared to describe the location of the construction and operations noise sources. Each receiver location is defined relative to the grid. Intervening topography, earthen berms, buildings, natural and man-made barriers are coded into the model based on geometrics and relative coordinates. The model considers the relative location of each source, barrier and receiver, along with the sound power or pressure of each source to predict noise levels at each receiver location. The effectiveness of noise barriers, engineering and administrative noise controls are also determined with the CadnaA model.

Operational and rail noise modeling input and output files are maintained at AGI offices.